

Award-winning CEOs as outside directors



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Declaration

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Philosophy is entirely my own work, and that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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To my family

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Award-winning CEOs as outside directors

Fabian Gogolin

Abstract

As its core contribution this thesis provides first insights into the role of CEO award winners as outside directors. We use CEO awards to identify a subset of high-profile CEOs and study their roles on external boards. Exploiting this new approach, we first show that investors recognize and value director reputation. Using a large sample of outside director appointments, we find evidence of a reputation premium. Further, the event study results suggest a significant bias in the selection and composition of boards. We show that highly reputable directors join the boards of firms that have produced significant abnormal returns in the three years prior to the appointment. Next, this thesis provides evidence that the dynamics and consequences of director reputation are observable at the firm level. We find a statistically and economically important contemporaneous association between director reputation and firm value. However, while director reputation is reflected in firm valuation, we show that it is in no way related to a firm's day-to-day operations. Further, we find evidence suggestive of a link between director reputation and corporate governance. Finally, the thesis evaluates whether and how firms can benefit from individual outside directors. Our results clearly show that the appointment of highly skilled (and/or highly reputable) outside directors does not guarantee the future success of a firm. Rather the results indicate that after years of strong performance, firm performance reverts to the mean. Similar results emerge from a study on M&A outcomes. Looking at short- and long-term M&A performance, we find no evidence suggesting that firms with high-profile outside directors make better acquisitions. Rather, the results further support the conclusion that the role of outside directors is less important than often assumed.

Chapter 1

Introduction

1.1 Introduction

The board of directors has a dual role as monitor and advisor. Whereas the monitoring role aims at protecting shareholders against managerial malfeasance, the advising role involves setting strategy, the selection of new projects and the review of corporate policies (Adams et al., 2010; Adams and Ferreira, 2007; Demb and Neubauer, 1992).

Outside board members are generally not significant shareholders and they are also not rewarded with the same type of generous performance-sensitive pay as senior management (Adams and Ferreira, 2008; Yermack, 2004; Fich and Shivdasani, 2006). Nevertheless, within a board, the responsibility to protect shareholder interests falls almost exclusively on outside directors. If financial incentives are weak, what motivates outside directors to act in the best interest of shareholders? What causes outside directors to monitor managers, rather than collude with them? All these questions directly touch upon the agency conflict between managers and shareholders. To protect shareholders, it is important to mitigate conflicts and better understand the dynamics that govern the behaviour of boards and individual directors.

In this thesis we focus on CEO award winners and their role on outside boards. They comprise a small, but important subset of outside directors. CEO award winners have been studied in relation to corporate performance and compensation

(Malmendier and Tate, 2009), competition (Ammann et al., 2016) and risk-taking (Shemesh, 2014). Among other things, Malmendier and Tate (2009) find, that the outside board responsibilities of CEO award winners increase considerably following an award. Moreover, CEO award winners are more than twice as likely to sit on five boards or more compared to non-award winners. Therefore, CEO award winners are represented on a large number of corporate boards and play a pivotal role in setting strategy and corporate governance standards in large US firms. However, none of the existing research has focussed on their role as outside directors.

From a shareholder or corporate governance perspective, CEO award winners are not necessarily the most desirable board members. They hold a CEO position at a large public firm, increasingly divert their attention towards so-called “celebrity” activities and often hold multiple board positions at the time of their appointment (Malmendier and Tate, 2009). So why is there such a strong demand for the services of these directors?

In line with recent research in this area (Masulis and Mobbs, 2014; Jiang et al., 2015; Masulis and Mobbs, 2016), the demand for CEO award winners highlights the importance of reputation in the market for outside directors. As discussed in Fahlenbrach et al. (2010), CEOs continue to be among the most desirable candidates to fill vacant board positions. The authors conclude that firms derive a certification benefit from the appointment of well-known CEOs, despite their limited time and resources. CEO award winners represent a small subset of highly successful CEOs. They have longer than average CEO tenure (Malmendier and Tate, 2009) and a track record of good performance (Ammann et al., 2016). Even more so than the average CEO, award winners will have established themselves as decision experts (Fama and Jensen, 1983).

Throughout this thesis we evaluate the roles CEO award winners occupy, how they are viewed by investors and whether or not their appointment carries important performance implications. However, studying a small subset of highly reputable

directors is also interesting from a theoretical perspective. The application of CEO awards in the context of the board of directors has three distinct advantages. First, it allows us to identify and study a small subset of highly reputable directors (identification). Second, it allows us to further contrast groups of outside directors, i.e. non-CEO outside directors vs. CEO outside directors vs. award-winning CEO outside directors (contrasting). And finally, the time-stamp associated with the CEO award allows us to design an innovative event study that exploits the exogenous change in reputation an outside director experiences upon winning a CEO award (time-stamp).

Within the three chapters of this thesis, we aim to address three questions. First, we are interested in the question whether or not investors recognize director reputation in respect to the appointment of a new outside director. This is an interesting question and has, to our knowledge, not yet been addressed. This question is of interest because it can support or refute how reputation is viewed within the context of the board (Fama and Jensen, 1983).

Second, we evaluate the consequences of a system where the most reputable directors will be matched with the most prestigious firms. As the primary agent to protect shareholder interests, it is not clear whether outside directorships awarded and accepted based on reputation can result in effective monitoring and the creation of shareholder value. Do firms that succeed in appointing high-profile directors perform better or earn abnormal returns? Or are high-profile directors hired for the certification benefit they provide? Can directors who are appointed on the back of their reputation be in the interest of shareholders and result in sound corporate governance?

Finally, we analyze whether individual high-profile directors can observably affect M&A outcomes. There is a large literature that aims to identify individual director characteristics or traits that are important for firm-level outcomes. CEO award winners provide a wide skillset that makes them valuable as board members. If

incentivized sufficiently, these directors are in a unique position to contribute value through their board function.

The questions addressed throughout this thesis can add significantly to our understanding of individual director attributes, the role of reputation in the market for outside directors and finally result in a better understanding of the composition and effectiveness of boards in general.

As part of its core contribution this thesis provides first insights in regard to the role of CEO award winners on corporate boards. Furthermore, the thesis introduces an innovative event study approach that contrasts director's different career stages and the associated reputational capital. In addition to the topical and methodological innovations, the thesis provides a range of empirical contributions.

First, the thesis highlights the importance of reputation in the director selection process. We provide convincing evidence that reputation is a commodity for outside directors. A (good) reputation allows directors to sit on the boards of prestigious firms that have performed well in the past. The results yield support for the existence of a significant bias in the selection and composition of boards.

Further, we find convincing evidence that investors recognize director reputation. Using a sample of outside director appointments, we show that investors attach a significant premium to the appointment of directors they perceive as more reputable. Reputation is recognized and valued as part of the director's human capital. Moreover, it can be interpreted as an indication of the firm's future growth opportunities. The event study approach and results presented in this thesis contribute crucially to our understanding of director reputation and how outside directors are appointed.

Next, this thesis provides evidence that the dynamics and consequences of director reputation are observable at the firm level. We find a statistically and economically important contemporaneous association between director reputation and firm value. This link has not been previously documented. We conclude that the positive association arises from two sources. First, director selection allows the most

reputable directors to sit on the boards of successful firms. And second, the positive association is a representation of a firm's human capital and future growth potential.

However, while director reputation is reflected in firm valuation, it is in no way related to a firm's day-to-day operations. We find no link between director reputation and different measures of contemporaneous or future operating performance. The findings are highly intuitive. They indicate that the presence of highly reputable directors can affect investor's perception of the firms current and future prospects, but does not actually translate into better operating performance.

Further, we find evidence suggestive of a link between director reputation and corporate governance. Our results suggest that appointments of highly reputable directors can be viewed positively from the shareholders point of view. We argue that because reputable directors have a vested interest to protect their reputation, corporate governance can serve as an insurance mechanism. Good governance provisions can limit the likelihood of managerial malfeasance and the reputational damage resulting from it. Incentives for outside director's to protect their reputation can hence lead to the implementation and improvement of existing governance structures.

Finally, the thesis evaluates whether and how firms can benefit from individual outside directors. If, for example, reputation results in a purely valuation-based premium, it is questionable whether this premium will persist if it is not accompanied by an improvement in actual operating performance. We observe a stark contrast between pre- and post-appointment performance. Despite the documented selection bias, we find little or no signs of outperformance in the post-appointment period. Our results clearly show that the appointment of high-profile outside directors does not guarantee the future success of a firm.

Similar results emerge from an analysis of M&A performance. Advising management on M&A's represents one of the most important board functions. We identify individuals that are, due to their their managerial expertise, experience and large social and business networks, in a unique position to positively influence M&A out-

comes. Looking at short- and long-term M&A performance, we find no evidence suggesting that firms with high-profile outside directors make better acquisition decisions. Rather, the results support the conclusion that the role ascribed to outside directors is less important than often assumed.

1.2 Context and motivation

1.2.1 Reputation in economics and finance

Reputation was first formally introduced in economics and applied in settings with incomplete or asymmetric information. In this context, reputation helped explain a variety of irrational behaviours and activities in areas including the labour market (Shapiro and Stiglitz, 1984; Holmström, 1982), product quality (Shapiro, 1983; Rogerson, 1983) and credit markets (Stiglitz and Weiss, 1983). Within this stream of research, reputation is understood to be an asset that individuals and firms build up and invest in to trade off short-term profits against long-term benefits. A fitting example is provided by Nelson (1974) who shows that in some circumstances it pays for an incumbent to establish a reputation for being aggressive, for instance through price wars, thereby discouraging potential competitors from future market entry.

When producers establish a reputation for producing high-quality goods, they have a strong incentive to continue to do so because consumers will reevaluate a producers reputation at every transaction (Shapiro, 1983). If a firm fails to produce at a level consistent with its reputation, the reputation will quickly be lost (Rhee and Haunschild, 2006). In other words, as firms or individuals build up reputation over time, the reputation becomes increasingly more valuable and worth protecting¹ (Diamond, 1989).

¹Apart from economics, the concept of reputation has also received considerable attention from management scholars. For an extensive review of reputation in the context of the organization see Lange et al. (2011). A more recent exposition of the importance and timeliness of reputation is presented in a recent editorial aimed at synthesizing existing research, identifying gaps and to carve out areas of future research (George et al., 2016).

A (good) reputation is linked to a past provision of high-quality goods or services, assumes a certain consistency over time and is often defined in terms of economic performance (Sorenson, 2014). It is understood as an observable signal of quality and therefore contains specific expectations about future economic performance (Dimov et al., 2007; Jensen and Roy, 2008).

While the economic literature mostly relies on models to understand how reputation affects exchanges under imperfect information, the concept of reputation as predominantly been studied in empirical settings in the finance literature. It has been studied in a range of areas including investment banking (Livingston and Miller, 2000; Fang, 2005), IPOs (Nanda and Yun, 1997; Gomes, 2000; Lewellen, 2006), sell-side analysts (Jackson, 2005; Fang and Yasuda, 2009), stock exchanges (Battalio et al., 2007), rating agencies (Mathis et al., 2009), bank loans (Ross, 2010) and more recently fields such as private equity (Demiroglu and James, 2010) and venture capital (Atanasov et al., 2012; Krishnan et al., 2011).

Livingston and Miller (2000), for example, study investment bank reputation using as sample of nonconvertible debt. They study how reputation effects underwriter fees, bond offering yields, and other expenses related to the issuance. The authors find evidence suggesting that investment bank reputation can act as a certification mechanism that ratifies the value of corporate debt issues. In a similar context, the results of Fang (2005) show that banks' underwriting decisions reflect reputation concerns and thus contain information in respect to the issue quality. Further, investment banks are, in certain circumstances, able to extract rents based on their reputation and thus have a strong incentive to protect it.

Krishnan et al. (2011) focus on the reputation of venture capital firms. They examine the association between a venture capitalist's reputation and long-run performance of IPOs. They find a positive relationship between a VC's reputation and the long-run performance of VC-backed IPOs. Highly reputable VC's select better-quality firms and are also more involved in the corporate governance of their

portfolio firms post-IPO.

Studies of IPOs similarly underline the importance of reputational effects for the issue underwriter. In an early account Nanda and Yun (1997), for instance, examine the importance of reputation by analyzing initial returns on IPOs. Lead-underwriters expose themselves to reputational risk when setting price targets for IPOs. If they set the initial target price too high, they expose themselves to a loss in credibility and subsequently a loss in reputation. Nanda and Yun (1997) find evidence that lead-underwriters suffer reputation costs in the form of a decrease in market value when they are involved in overpriced IPOs. In a more recent study, Lewellen (2006) shows that underwriters frequently repurchase shares of poorly performing IPOs to stabilize the price. The findings provide support for a reputation hypothesis consistent with underwriters stabilizing poorly performing IPOs to protect their reputation.

Fang and Yasuda (2009) investigate the role of reputation in the context of analyst forecasts. Amongst other things, they find that personal reputation can mitigate conflicts of interests and serve as an effective disciplinary device.

Overall, the existing research collectively highlights the importance of reputation across a range of economic and financial settings. Within the finance literature, the research can be broadly divided into two streams. The first stream understands reputation as an asset that is worth protecting (Livingston and Miller, 2000; Fang, 2005; Krishnan et al., 2011) and the second stream understands reputation as a disciplinary device that helps mitigate conflicts of interest (Fang, 2005; Lewellen, 2006; Fang and Yasuda, 2009). As a disciplinary device, reputation can incentivize individuals or agents to act in the best interest of, for example, their customer in order to protect their reputation. Thereby, reputation leads to an incentive system that allows individuals, firms and managers to trade off short-term gains against long-term profits. However, while reputation effects have been actively studied in mainstream finance, the research on reputational effects in respect to the board of

directors, despite its long-standing theoretical foundation (Fama, 1980; Fama and Jensen, 1983), is still scarce.

1.2.2 Director reputation

Fama (1980) and Fama and Jensen (1983) first introduced the idea that reputational concerns can incentivize outside directors to act in the interest of shareholders. Directors establish themselves as decision experts and are subsequently rewarded with additional directorships.

A growing number of empirical studies have since attempted to empirically evaluate the role of reputation in the respect to the director labour market and its effect on board and firm outcomes. Existing studies can be divided into those that look at events that are damaging to a director’s reputation and those that attempt to directly evaluate the effects of director- or firm-level reputation.

For example, Fich and Shivdasani (2007) show that following lawsuits, directors experience a significant decline in the number of their outside board positions. This decline in the number of board positions is more pronounced if the allegations are more severe or the director bears greater responsibility. Moreover, directors with boards seats at firms facing fraud allegations are more likely to lose their board positions at firms with stronger governance. More recently, Fos and Tsoutsoura (2014) show that proxy contests, as a result of poor director performance, can be equally damaging to a director’s future career prospects. Following proxy contests, directors experience a significant decline in the number of board seats at the firm targeted with the proxy fight, but also at other non-targeted firms. Furthermore, reductions in cash dividends (Kaplan and Reishus, 1990), financial and disclosure-related fraud (Brochet and Srinivasan, 2014) and excessive executive pay (Ertimur et al., 2012) have been shown to be similarly damaging to a directors’ career.

While the research focussing on particular damaging events has produced relatively clear empirical evidence, measures to directly evaluate director reputation

are still scarce. Masulis and Mobbs (2011) made a first attempt at measuring and quantifying director incentives and external reputation. They argue that inside directors with external board responsibilities are incentivized to be more concerned with firm performance in order to enhance or maintain their reputational capital. Whereas this approach offers an interesting way to study the roles and incentives of non-CEO inside directors, the proposed measure is confined to a subset of inside directors.

Masulis and Mobbs (2014) introduce a first, more general measure of director reputation incentives. They exploit firm size as a source of director reputation and argue that directors derive stronger reputation incentives from sitting on boards of larger firms. Focussing on directors with multiple directorships, they contrast relative reputation incentives directors derive from sitting on the board of a large capitalization firm compared to a firm with a low market capitalization. Additionally, the authors also provide a finer division and assign a weighting of “high” to a board seat if it is at least 10% larger than the board seat with the lowest relative market capitalization. The derived reputation incentives are then aggregated at the board level and related to board- and firm-level outcomes².

Despite its intuitive nature, the Masulis and Mobbs (2014) measure has several important limitations. Most importantly, it is a measure that applies only to directors with multiple directorships. In the case of Masulis and Mobbs (2014), this excluded almost half of the director-year observations in their sample. Moreover, it is a measure of relative reputation incentives. It derives its validity from contrasting individual directorships and thereby deducing differential reputation incentives. The measure, however, fails to account for any other sources of reputation incentives or concerns.

²The same measure is adopted by Masulis and Mobbs (2016) and Sila et al. (2017). Masulis and Mobbs (2016) show that high reputation incentives are also associated with fewer firm actions known to hurt shareholder value. In a very recent study, Sila et al. (2017) employ the same measure to study the informativeness of stock prices.

For example, CEOs will have strong incentives to protect their reputation irrespective of the number and market capitalization of the board they sit on. Further, the Masulis and Mobbs (2014) measure ignores firm-specific factors such as firm's growth opportunities, past performance or industry-specific reputation effects as well as director-level factors such as education, experience and age. In a closely related paper focussing on director career concerns, Jiang et al. (2015) advocate a different measure. The authors use the number of times a director is mentioned in the media as their primary and the number of directorships as a secondary measure of reputation. While the authors manually exclude articles that contain negative or critical comments, its validity as a general measure of director reputation is limited. To begin with, it requires that directors are sufficiently covered by major media outlets. Further, it implicitly assumes that there is no underlying bias in respect to the media attention received by certain directors, companies or industries.

A director could, for example, be very well respected and highly reputable but serve on the board of a company in an industry that is inherently unattractive for the media and investors. Therefore, this director would, despite his qualities and good reputation, receive a lot less attention than a mediocre director at a more prominent firm. In respect to certain industries in particular, it is easy to imagine how they might fall in and out of favour with major media outlets.

Their secondary measure, the number of directorships, has some theoretical foundations (Fama, 1980; Fama and Jensen, 1983) and has been applied in earlier work (Kaplan and Reishus, 1990; Gilson, 1990; Ferris et al., 2003) on the board of directors. However, it fails to distinguish between different directorships and is thus less intuitive and appealing than the Masulis and Mobbs (2014) measure.

1.2.3 Motivation

1.3 Research methodology

Following Malmendier and Tate (2009), we use a hand-collected sample of CEO awards from major national publications such as *Business Week*, *Financial World*, *Forbes*, *Chief Executive*, *Morningstar.com*, *Electronic Business Magazine*, *Industry Week* and the *Harvard Business Review*. We consider only awards that are prominent enough to serve as a signal of the CEO’s reputation (Malmendier and Tate, 2009; Ammann et al., 2016). Our final dataset includes a hand-collected list of 839 CEO awards conferred between 1975-2013. After accounting for individuals who won multiple awards, we identify 582 individual award winner.

We use CEO awards to identify a subset of highly reputable directors. An alternative would have been to use director awards from sources such as the Outstanding Directors Exchange (ODX) or the National Association of Corporate Directors (NACD). However, the ODX has, since its inception in 1998, only honoured 130 independent directors across the US. The NACD, on the other hand, initiated its director awards only in 2012. Therefore, the ability to match the awards with firm-level or acquisition data is limited³. While director awards would open up an interesting avenue for future research, the data limitations render them infeasible for large-sample studies. We construct our variables of interest based on the sample of 582 individual CEO award winners and employ different empirical techniques to test our predictions throughout this thesis.

³The NACD has awarded five different Awards including the i) NACD B. Kenneth West Lifetime Achievement Award, ii) NACD Directors of the Year (two directors were honoured in 2012 and only one director in the years thereafter), iii) NACD Directorship 100: Hall of Fame, iv) NACD Directorship 100: Directors, v) NACD Directorship 100: Governance Professionals and Institutions (additionally, in 2012, the NACD had a category named “NACD Directorship 100: People to Watch, making it difficult to determine how valuable each of these awards is for a director. Merely, focussing on the “NACD Director(s) of the Year” category would have restricted the sample to merely 6 observations.

1.3.1 Event study methodology

We use event study techniques in Chapter 2 and Chapter 4 to examine investor reactions in relation to outside director appointments (Chapter 2) and merger and acquisition announcements (Chapter 4). We use the standard methodology of Dodd and Warner (1983)⁴.

Within the event study methodology let $t = 0$ represent the time of the event. For each sample security i , the return on the security for time period t relative to the event, R_{it} , is

$$R_{it} = K_{it} + e_{it},$$

where K_{it} is the expected return and e_{it} is the component of returns which is abnormal or unexpected. It follows therefore, that the abnormal return, e_{it} , is the difference between the observed return and the predicted return:

$$e_{it} = R_{it} - K_{it},$$

Put differently, e_{it} is the difference between the return conditional on the event and the expected return unconditional on the event. As such, the abnormal return is a measure of the unexpected change in a stock price associated with a particular event. We use the market model to describe security returns. The market model for any security i is

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + e_{i,t},$$

with $E[e_{i,t}] = 0$ and $VAR[e_{i,t}] = \sigma_{ei}^2$. $R_{i,t}$ and $R_{m,t}$ are the period- t returns on security i and the market portfolio m respectively. $e_{i,t}$ is the zero mean disturbance term. α_i is the intercept and β_i the slope. Using the market model, the sample abnormal return is

$$\hat{e}_{i,t} = R_{i,t} - \hat{\alpha}_i - \hat{\beta}_i R_{m,t}.$$

⁴For a more recent and detailed discussion of the standard event study methodologies, see, for example, Kothari and Warner (2008) and Campbell et al. (1997).

The abnormal return is the disturbance term($\hat{e}_{i,t}$) of the market model on an out of sample basis. For a sample of N events, the cross-sectional mean abnormal return for any period t is

$$AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{i,t} = \frac{1}{N} \sum_{i=1}^N \hat{e}_{i,t}.$$

The average abnormal returns can be aggregated over the event window t_1 through time t_2 (i.e., horizon length $L = t_2 - t_1 + 1$)

$$CAAR_{(t_1,t_2)} = \sum_{t=t_1}^{t_2} AAR_t.$$

1.3.1.1 Test statistic

Following Patell (1976) and under the assumption that abnormal returns are uncorrelated and variance is constant, we standardize abnormal returns by their estimated standard deviation

$$SAR_{it} = \frac{AR_{it}}{S(AR_{it})},$$

where to account for the fact that the event-window abnormal returns are an out-of-sample prediction, the standard error is adjusted by the forecast error

$$S(AR_{it}) = \hat{\sigma}(AR_i) \sqrt{1 + \frac{1}{M_i} + \frac{(R_{m,t} - \bar{R}_m)^2}{\sum_{\tau=t_0}^{t_1} (R_{m,\tau} - \bar{R}_m)^2}},$$

and where $\hat{\sigma}^2(AR_i)$ is the estimate of the variance of abnormal returns over the estimation window, defined as follows:

$$\hat{\sigma}^2(AR_i) = \frac{1}{M_i - d} \sum_{t=t_0}^{t_1} (AR_{i,t})^2,$$

where M_i is the number of non-missing returns and d is the degrees of freedom (e.g. $d=2$ for the market model). The standardized version of the abnormal returns can then be cumulated over time t_1 through time t_2 is then

$$CSAR_{i(t_1,t_2)} = \sum_{t=t_1+1}^{t_2} \frac{AR_{it}}{S(AR_{it})}.$$

The cross-sectional average of the standardized abnormal returns is then:

$$\overline{CSAR}_{(t_1, t_2)} = \frac{1}{N} \sum_{i=1}^N CSAR_{i(t_1, t_2)}.$$

The standard deviation of $CSAR_{i(t_1, t_2)}$ is estimated from the cross section of event window abnormal returns:

$$S(CSAR)_{(t_1, t_2)} = \sqrt{\frac{1}{N(N-1)} \sum_{i=1}^N \left[CSAR_{i(t_1, t_2)} - \overline{CSAR}_{(t_1, t_2)} \right]^2}.$$

The standardized cross-sectional test statistic for the null hypothesis that the cumulative average abnormal return is equal to zero is then (Boehmer et al., 1991):

$$t_{BMP} = \frac{\overline{CSAR}_{(t_1, t_2)}}{S(CSAR)_{(t_1, t_2)}}.$$

1.3.2 Long-horizon event study

To estimate long-term abnormal returns we use a calendar-time approach (also sometimes referred to as Jensen-alpha approach). We calculate monthly abnormal returns by estimating the intercept of the calendar-time portfolio using the Fama and French (1993) three factor model. We use a weighted least squares (WLS) regression as suggested by Fama (1998) and weigh each calendar months by the number of event observations with the number of assets in the monthly portfolio as the weighting factor.

$$AR_{it} = R_{it} - R_{ft} - \beta_{i1}(R_{mt} - R_{ft}) - \beta_{i2}HML_t + \beta_{i3}SMB_t,$$

where AR_{it} or alpha is the monthly abnormal return of the calendar-time portfolio, R_{it} is the return on a security i , R_{ft} is the risk-free return, R_{mt} is the return on a value-weighted market portfolio, SMB_t is the return on a diversified portfolio of small stocks minus the return on a diversified portfolio of big stocks and HML_t is the difference between the returns on diversified portfolios of high and low book-to-market (B/M) stocks.

For further robustness and as a response to the recent challenges to the traditional three factor model (Carhart, 1997; Novy-Marx, 2013), we also estimate the more recently introduced five factor model (Fama and French, 2015).

$$AR_{it} = R_{it} - R_{ft} - \beta_{i1}(R_{mt} - R_{ft}) - \beta_{i2}SMB_t - \beta_{i3}HML_t \\ - \beta_{i4}RMW_t - \beta_{i5}CMA_t,$$

where AR_{it} or alpha is the monthly abnormal return of the calendar-time portfolio, R_{it} is the return on a security i , R_{ft} is the risk-free return, R_{mt} is the return on a value-weighted market portfolio, SMB_t is the return on a diversified portfolio of small stocks minus the return on a diversified portfolio of big stocks, HML_t is the difference between the returns on diversified portfolios of high and low book-to-market (B/M) stocks, RMW_t is the difference between the returns on diversified portfolios of stocks with robust and weak profitability and CMA_t is the difference between the returns on diversified portfolios of stocks of low and high investment firms which are referred to as conservative-aggressive.

1.3.3 Hypotheses testing

We test for differences in mean using a standard *t-test*. We test the following hypothesis

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 \neq \mu_2$$

and calculate the following test statistic

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}},$$

where n_1 is the sample size of population 1, n_2 is the sample size of population 2, \bar{x}_1 is the mean for population 1, \bar{x}_2 is the mean for population 2, s_1 is the standard deviation for population 1, s_2 is the standard deviation for population 2.

In a second step, we apply the Wilcoxon rank-sum test and test for differences in means. The test statistic is:

$$z = \frac{T - E(T)}{\sqrt{Var(T)}},$$

where

$$E(T) = \frac{n_1(n+1)}{2} \quad \text{and} \quad Var(T) = \frac{n_1 n_2 s^2}{n}$$

and where s is the standard deviation of the combined ranks, r_i , for both groups

$$s^2 = \frac{1}{n-1} \sum_{i=1}^n (r_i - \bar{r})^2.$$

1.3.4 Regression analysis

Moreover, we employ different regression models throughout this thesis. The model choice is predominantly motivated by the type of dependent variable, i.e. continuous, binary or censored. We estimate a simple multivariate regression model

$$Y_i = \beta_1 Z_i + \beta_2 X'_i + \epsilon_i,$$

where Y is the dependent variable. Z is our variable of interest and X' is a vector of control variables for observation i .

We use a logistic regression model whenever the depending variable is binary

$$Pr(Y_i = 1 \mid Z_i, X_i) = G(\beta_1 + \beta_2 Z_i + \beta_3 X'_i),$$

where Y is a binary dependent variable, Z is our variable of interest and X'_{it} is a vector of control variables for observation i . We assume that G is the logistical distribution.

Finally, when dealing with censored or truncated dependent variables we use a tobit model. The standard structural equation in the Tobin model is (Tobin, 1958):

$$y_i^* = \beta_1 X_i + \epsilon_i,$$

where $\epsilon_i \sim \mathcal{N}(0, \sigma^2)$. y^* is a latent variable that is observed for values greater than τ and censored otherwise. In the typical tobit model and similar to our application

in Chapter 4, we assume that $\tau = 0$. That means that the data are censored at 0. In our example, we try to model negotiation time which is naturally censored at 0 days. Thus we have

$$y_i = \begin{cases} y^* & \text{if } y^* > 0 \\ 0 & \text{if } y^* \leq 0. \end{cases}$$

1.3.5 Cluster-robust standard errors

We begin with OLS with a single regressor that is nonstochastic, and assume no intercept in the model⁵. Let $y_i = \beta x_i + u_i$ with $i = 1, \dots, N$ and $E[u_i] = 0$, where x_i is nonstochastic. The methodology extends to multiple regression with stochastic regressors. Now, let i denote the i^{th} of N individuals and g the g^{th} of G clusters. Then for individual i in cluster g the linear model with clustering is

$$y_{ig} = x'_{ig}\beta + u_{ig},$$

where x_{ig} is a $K \times 1$ vector and $E[u_{ig}|x_{ig}] = 0$. To derive the robust clustered variance estimate, we stack all observations in the g^{th} cluster, and rewrite the linear model as

$$y_g = X_g\beta + u_g, \quad g = 1, \dots, G,$$

where y_g and u_g are $N_g \times 1$ vectors, X_g is an $N_g \times K$ matrix, and there are N_g observations in cluster g . The OLS estimator is

$$\hat{\beta} = (X'X)^{-1}X'y = \left(\sum_{g=1}^G X'_g X_g \right)^{-1} \sum_{g=1}^G X'_g y_g.$$

The general variance matrix conditional on X is

$$V[\hat{\beta}] = (X'X)^{-1}B(X'X)^{-1},$$

with

$$B = X'V[u|X]X.$$

⁵For a detailed review and discussion of cluster-robust standard errors, see Cameron and Miller (2015).

Given the error independence across clusters the cluster-robust estimate of the variance matrix is

$$\hat{V}_{clu}[\hat{\beta}] = (X'X)^{-1}\hat{B}_{clu}(X'X)^{-1},$$

where

$$\hat{B}_{clu} = \sum_{g=1}^G X_g' \hat{u}_g \hat{u}_g' X_g,$$

where $\hat{u}_g = y_g - X_g \hat{\beta}$ is a vector of OLS residuals for the g^{th} cluster. The cluster-robust variance estimator is similar to the standard estimator with $E[u_g u_g']$ replaced with $\hat{u}_g \hat{u}_g'$.

1.3.6 Panel fixed effects

Finally, we use a panel fixed effects model to examine potential effects on firm value and firm performance in Chapter 3. Among other things, the advantages of using panel data include more information, more variability, more degrees of freedom and ultimately more efficient coefficient estimates (Baltagi, 2008). Most importantly however, panel data allows for the control of unobservable and individual heterogeneity (Askildsen et al., 2003). The fixed effects model captures the net effect on firm value and firm performance. It controls for time invariant and unobservable firm specific characteristics. We use a simple fixed effects model for firm $i = 1, \dots, N$ observed across time periods $t = 1, \dots, T$

$$y_{it} = \beta x'_{it} + \gamma z'_i + c_i + u_{it},$$

where y_{it} is the dependent variable, x'_{it} is a K-dimensional row vector of time-varying explanatory variables and z'_i is a M-dimensional row vector of time-invariant explanatory variables. β is a K-dimensional column vector of parameter estimates and γ is a M-dimensional column vector of parameter estimates. c_i is a firm-specific effect and u_{it} is the idiosyncratic error term. Subtracting time averages $\bar{y}_i = \sum_t y_{it}/T_i$, $\bar{x}_i = \sum_t x_{it}/T_i$ and $\bar{u}_i = \sum_t u_{it}/T_i$ yields the following model

$$(y_{it} - \bar{y}_i) = \beta(x_{it} - \bar{x}_i) + (u_{it} - \bar{u}_i),$$

where the individual-specific effect c_i and the time-invariant regressors z_i cancel. The fixed effects model allows us to control for omitted variable bias and hence is an effective technique to limit problems around endogeneity.

1.4 Structure

The thesis is structured in the form of three linked studies. Each study is based on its own dataset and methodology. The structure is as follows.

Chapter 2 evaluates the value of director reputation using a sample of outside director appointments. The findings are presented in Chapter 2, entitled *The value of director reputation: Evidence from outside director appointments*. The results in this chapter are based on a sample of outside director appointments. For every appointment we collect information from sources such as *Who's Who in Finance and Business* and *NNDB*, appointing and appointee firm characteristics from *Compustat* and stock market data from *CRSP*.

Drawing on the findings from Chapter 2, the second stage of the research specifically evaluates the role of award-winning CEOs as outside directors at the firm level. Chapter 3 entitled *Director reputation and firm outcomes: The case of award-winning CEOs* uses a large cross-section of S&P 1500 firms to evaluate the role of reputation in the matching of firm and director. As the primary agent to protect shareholder interests, it is not clear whether outside directorships awarded and accepted based on reputation can result in effective monitoring and promote shareholder value. In particular, the chapter examines implications for firm performance and corporate governance.

And finally, Chapter 4 analyses the role of award-winning CEOs on corporate boards and examines whether they can improve acquisition outcomes. The chapter entitled *Award-winning CEOs in the board room: the case of acquisitions* is based on a sample of mergers and acquisitions of firms covered by *RiskMetrics*. The final sample includes 3,157 mergers and acquisitions for the period from 1996-2013.

1.5 Contribution

Despite several recent advances in the area of director reputation (Masulis and Mobbs, 2014, 2016; Jiang et al., 2015; Sila et al., 2017), the research is still at a very early stage. The difficulty to design and empirically test measures of director reputation, have prevented further advances and a better understanding.

This thesis introduces CEO awards as a tool to identify a group of outside directors that have not yet been studied. We provide first insights in the role of these CEO award winners as outside directors. They are among a small subset of highly reputable directors and as such particularly interesting to study. Empirically investigating this subset of directors allows us to better understand the role of reputation in the matching of firm and directors, explore whether investors recognize reputation and identify performance implications.

Moreover, the results presented throughout this thesis are particularly valuable because they are based on unique datasets. We combine unique and hand-collected data with well-established and broadly used existing datasets. The combination of a novel measure and unique datasets to study director reputation of outside directors allows us address new questions and uncover new relationships. Thereby, this thesis provides valuable additional insights and adds significantly to the existing literature.

From a methodological perspective this thesis makes a considerable contribution by introducing an innovative event study around the conferral of the CEO award. The event study design helps circumvent some of the well-known problems around endogeneity that apply to most studies in this area. The proposed methodology aims to exploit differential career concerns across the directors career and uncover whether investors recognize reputation in respect to director appointments.

Further, the thesis also yields several significant empirical contributions. First, the thesis clearly highlights the importance of reputation in the director selection process. The underlying selection process is not random and makes the interpretation of firm-level studies on the board of directors difficult (Adams et al., 2010).

We can clearly show that reputation is a commodity for outside directors. Having a (good) reputation, allows directors to access the most prestigious board seats. Further, we show that they accept appointments to the boards of firms that have significantly outperformed in the past. The results indicate that reputable directors seem to join the boards of firms that have experienced rapid growth over an extended period of time. While many studies have touched upon this issue, few have provided direct evidence showing how reputation affects director selection.

Second, the thesis also contributes to a very recent strand of literature focussing on the firm-level implications of director reputation incentives (Masulis and Mobbs, 2014, 2016). We show that consequences of director reputation are directly observable at the firm level. We find a statistically and economically important contemporaneous association between director reputation and firm value. This link has not been previously documented. We show that it stems from director selection, on the one hand, and a causal link on the other hand. Using a sample of outside director appointments, we show that investors react more positively to the appointment of a director they perceive as more reputable. This is an important finding and has not previously been documented.

Further, we show that while director reputation is reflected in firm valuation, it is in no way related to a firm's day-to-day operations. We find no link between director reputation and different measures of contemporaneous or future operating performance. This finding is intuitive and indicates that reputation is a phenomenon that affects investor's perception rather than operational profitability. To investors the recruitment of a highly reputable director serves as a signal of future growth potential. Interestingly, the empirical evidence indicates that this signal does not translate into actual performance changes. The findings help us to better understand the firm-level consequences of director reputation and its importance for investors.

Third, we establish a theoretical and empirical link between director reputation incentives and corporate governance. Because reputation becomes more valuable as

it is built up (Diamond, 1989), highly reputable directors have strong incentives to protect their reputation. Directors can benefit from the implementation of governance provisions in two ways. From the director's perspective, governance provisions can be viewed as a mechanism to limit reputational damage in case of managerial malfeasance or oversight failures. Moreover, through the improvement of governance provisions directors can also establish themselves as oversight experts and indicate their ability as diligent monitors (Fama, 1980).

Finally, this thesis adds to several key questions in the broader area of corporate governance and the board of directors. The thesis contributes to existing knowledge by addressing the question of whether or not firms benefit from the appointment of individual outside directors. We observe a stark contrast between pre- and post-appointment performance. That is, despite a significant selection bias leading to a highly significant contemporaneous value effect, post-appointment performance shows little or no signs of abnormal returns. Our results clearly show that the appointment of high-profile (and/or highly reputable) outside directors does not guarantee the future success of a firm. Rather the results indicate that, after years of strong performance leading up to the appointment of a highly sought after outside director, firm performance mean reverts.

Similar results emerge from an analysis of M&A performance. While advising management on M&A decisions is often quoted as one of the key responsibilities of the board, we find no evidence that individual outside directors, irrespective of their quality and reputation, help a firm make better acquisition decisions. Neither long-term stock performance following the appointment nor M&A performance reveal that individual outside directors contribute observably to the long-term success of a firm. Instead, our results indicate that the role of outside directors may be more limited than often assumed.

1.6 Research Dissemination

Research projects leading up to the development of the three papers that can be found in this thesis were presented at a variety of seminars such as the International Doctoral Colloquium at Northeastern University (Shenyang, China), Dublin City University and Queen's University Belfast.

Chapter 2, "Director reputation and firm outcomes: The case of award-winning CEOs" has been submitted to the Midwest Finance Association for presentation at their annual meeting in Chicago, Illinois in March 2017.

Chapter 3 entitled "The value of director reputation: Evidence from outside director appointments" has been accepted for presentation at the 2016 Paris Financial Management Conference and is currently under review at the *Journal of Business Research*, an ABS3 journal.

The last part, Chapter 4, "Award-winning CEOs in the board room: The case of acquisitions" is currently being prepared for submission to the *International Review of Financial Analysis*.

Further, applying the methodological understandings a side-project has resulted in an ABS3 publication in *Economic Letters*.

Chapter 2

The value of director reputation: Evidence from outside director appointments

2.1 Introduction

Reputation is a well-known commodity in the market for outside directors (Fama, 1980; Fama and Jensen, 1983). Recent research has highlighted the importance of director-level reputation in respect to monitoring (Masulis and Mobbs, 2014; Jiang et al., 2015), firm outcomes (Masulis and Mobbs, 2016) and director career concerns (Brochet and Srinivasan, 2014; Fich and Shivdasani, 2007; Fos and Tsoutsoura, 2014). However, many questions in respect to the costs and benefits of director reputation remain unanswered.

One area where reputation is particularly important but has not been directly studied is director appointments. Outside directorships are an important source of prestige and serve as a signal of quality in the market for corporate directors. Kaplan and Reishus (1990) argue that while boards retain directors based on loyalty and relationships, director appointments are largely made based on reputation. It is not clear, however, whether firms benefit from the appointment of a reputable director and how investors view such appointments. Do investors recognize reputation as a resource and an incentive device that motivates directors to act in their best interest? Or do they take a critical stance and view highly reputable directors as

potentially time constrained directors waiting to “trade-up” as described in Masulis and Mobbs (2014) and take board positions at more prestigious firms? There are, to our knowledge, no studies that have directly studied director reputation using outside director appointments. This study attempts to close this gap.

Existing studies tend to compare the announcement returns of CEO directors to those of non-CEO directors. Fich (2005) and Fahlenbrach et al. (2010), for example, find that investors react more positively to the appointment of a CEO. CEO directors, however, differ from non-CEO directors in many ways. This empirical approach likely uncovers differences in the quality of the appointed directors, rather than providing insights in respect to director reputation (Adams et al., 2010).

In this paper, we are interested in the role of director reputation and not differences between groups of directors (CEOs and non-CEOs). Therefore, we take a different approach than Fich (2005) and Fahlenbrach et al. (2010). We use CEO awards as an identification tool to identify individuals that will retrospectively have enjoyed similar careers. All CEO award winners will become CEOs, will act as CEO of a large public firm for an extended number of years and will end up winning a CEO award. Upon winning a CEO award, the CEO will gain the so-called “superstar status” (Ammann et al., 2016; Malmendier and Tate, 2009).

We argue that CEO awards contribute significantly to a director’s reputation and serve as an important signal in the market for corporate directors. While the role of CEO award winners has been studied in relation to the CEO’s firm, little is known about their role on corporate boards. Malmendier and Tate (2009) show that among other things, such as engaging in a range of “celebrity” activities, the CEO’s outside board responsibilities increase considerably following a CEO award. However, the potential to study the effect of CEO awards in relation to outside board appointments has, so far, been overlooked.

Accounting for the directors different career stages, as well as various director- and firm-level variables, we examine whether investors react observably different

after a director has won a CEO award. The main focus of this paper is to study the short-term value effect around the outside director appointment of a sample of CEO award winners. However, we also address several interesting follow-on questions. For example, we test whether the reputation of a director is related not just to the first CEO award, but also further increases with the number of awards a director wins. We also study whether or not the investor reaction at the CEO's own firm differs according to whether or not the CEO has won an award. Finally, we investigate the long-term implications of appointing CEO award winners as outside directors. We study director selection dynamics before the appointment and value consequences after the outside director is appointed. Again, we specifically focus on the director's different career stages and contrast the periods before and after a director has won the first CEO award.

As in Malmendier and Tate (2009), we use a hand-collected sample of prestigious CEO awards conferred by editorials of major national publications. For the identified CEO award winners we search *LexisNexis* for outside director appointments. Our final sample consists of 432 first-time director appointments across different career stages, before and after the directors win the first CEO award.

Our expectation is that directors enjoy the highest relative level of reputation at the point in time when they are CEO and have won their first CEO award. The CEO award will be conferred as a result of good performance, over an extended period of time, at a large public company and marks the pinnacle of the directors career (Ammann et al., 2016; Malmendier and Tate, 2009). We argue that directors appointed to outside boards after they win the first award will generate significantly more positive investor reactions than at any other point throughout their career. In particular, we contrast three different stages of the directors career: i) active CEO, ii) award-winner and iii) CEO award winner.

Outside director appointments are particularly well suited for the purpose of this study because firms actively communicate career highlights and achievements

of the appointed director. We argue that firms do so in order to justify as well as to promote the new appointment. The appointment of Leonard D. Schaeffer, CEO of WellPoint, provides a fitting example and highlights how investors may be positively (or negatively) swayed through the appointment announcement:

“Mr. Schaeffer was recently selected by BusinessWeek magazine as one of the ”Top 25 Managers of the Year,” and by WORTH magazine as one of the ”50 Best CEOs in America” for his leadership of WellPoint, one of the nation’s largest publicly traded health care companies. WellPoint operates in California as Blue Cross of California and as UNICARE Life & Health Insurance Company throughout the rest of the nation.”
(*Business Wire*, 14 February 2001, retrieved from LexisNexis)

This study makes several important contributions. First and foremost, the key result in this study is consistent with recent research pointing to the importance of director-level reputation in the market for outside directors (Masulis and Mobbs, 2014, 2016; Jiang et al., 2015). By contrasting the announcement of a homogeneous group of directors across different stages of their career, before and after they win a CEO award, we show that the appointment of a director who is an active CEO and has won a CEO award yields significantly higher announcement returns. At the same time, we show that the CEO position or a CEO award per se are associated with significantly smaller announcement returns.

Our univariate results reveal significantly higher investor reactions to the appointment announcement of a CEO award winner. The documented effect is statistically and economically meaningful. The announcement returns for CEO award winners are five times higher than those for non-CEO award winners (0.85% vs. 0.17%). For a 3-day event window, the effect is equivalent to \$249 (\$55) million for the average (median) appointing firm. Similar results emerge from a formal regression analysis. Within our multivariate framework, the variable of interest throughout is $CEO \times First\ Award$. This interaction term identifies the appointments of directors who are active CEOs and have won a CEO award and contrasts

them with appointments at different stages of the directors career, i.e. before and after the director wins the first award and before and after the director becomes CEO. To identify a reputation effect we control for a range of additional director- and firm-level variables such as gender, founder status, whether or not the director’s primary work is outside the US, number of outside board seats, education as well as firm size, R&D expense and profitability. The documented premium attached to the appointment of an outside director who is a CEO and has won an award ranges from 2.02% to 2.09%. For the average (median) firm in our sample, the value effect for a 3-day event window translates into an increase in market capitalization between \$591(\$131) and \$614 (\$136) million¹

Moreover, our results reveal that a director’s career stage is an important determinant of the observed announcement returns. The documented positive effect is confined to a small set of CEO award winners. Investor reactions to the appointment of a CEO who has not yet won an award (*CEO*) are, in comparison, significantly more negative. A similar effect can be observed for the appointment of directors who are non-chief executives (*Other Executives*). Similar results emerge for the indicator variable that signifies whether or not directors have won their first CEO award (*First Award*). We find significantly lower announcement returns to the appointment of directors who have won an award but are not or no longer active CEOs.

Because our analysis covers directors across different stages of their career we cannot fully rule out that our results partially reflect the relative value attached to a director’s career stage at the time of appointment (i.e. CEO vs. Other Chief Executive vs. Other Executive), rather than differences in director reputation. To add further robustness to our hypothesis, we re-estimate our baseline regression for a sample of CEO director appointments. This allows us to further increase the homogeneity in our sample to CEO award winners who are all active CEOs at the time of their appointment as outside directors. Again, we find significantly more

¹The value effect is calculated as the lowest (2.02%) and highest (2.09%) estimated coefficient on *CEO* \times *First Award* multiplied by the average (median) market capitalization.

positive investor reactions if the appointed director has won an award. Our findings demonstrate that investors recognize and value director reputation.

Additional tests reveal that whether or not a CEO wins a second award is less important. We find no evidence that investor reactions are stronger for CEO's who have won two (or more) awards. This indicates that while the first award significantly increases the director's reputation and demand in the market for corporate directors, winning a second (third or fourth) award does not. This is consistent with the underlying assumption in Malmendier and Tate (2009) who argue that CEOs are elevated to a "superstar status" upon winning the first CEO award.

This paper contributes to the understanding of director reputation in the director selection process. Long-term performances measures show that reputable directors join the boards of firms that have performed well in the past. We document highly significant abnormal monthly returns in the 24-months and 36-months pre-appointment period. We document monthly abnormal returns in the range of 0.53-0.82% and 0.58-0.68% respectively.

This study also contributes more generally to our understanding of outside director effectiveness and whether or not individual directors are important for firm performance. Given the high quality of the directors in our sample (all the directors end up winning a CEO award), we would expect that firms benefit from the appointment of such a high profile director or, at least, that the firm's continue to perform as they did before the appointment. Comparing pre- and post-appointment performance, however, reveals a stark contrast. Our results shed doubt on the effect individual outside directors may have through their board functions.

Further, the study shows that successful CEO's are indeed rewarded with outside directorships. Fama (1980) and Fama and Jensen (1983) along with several other more recent papers argue that directors (or CEOs) are rewarded with outside board positions for good performance. Our findings provide strong support for this argument. We find evidence of significant abnormal monthly returns in the 12-month,

24-month and 36-month pre-appointment period for the CEOs in our sample.

And finally, we contribute through the introduction of a new event study design to evaluate the value consequences of director reputation. The approach advocated in this study has important advantages. Most studies on the boards of directors are conducted at the firm-board level and given the concern of Hermalin and Weisbach (1998), that boards are, at least partially, endogenously chosen, any result suggesting a relation between corporate governance and firm outcomes is difficult to interpret. Using an event study allows us to design a test of director reputation that is not confounded by sample selection concerns.

The remainder of this chapter is organized as follows. In Section 2, we discuss the motivation and the empirical strategy of the paper. Section 3 presents the data and descriptive statistics. The results are presented in Section 4, Section 5 and Section 6. The conclusion is presented in Section 7.

2.2 Background and empirical strategy

2.2.1 Reputation of outside directors

Outside directorships are important because they are a source of prestige (Mace, 1986) and serve as a signal of quality in the market for corporate directors (Fama, 1980; Fama and Jensen, 1983). However, it is not clear what motivates directors to be effective monitors. Because financial incentives do not play a significant role (Booth and Deli, 1996; Yermack, 2004; Adams and Ferreira, 2008), recent research has focussed on director reputation as an important incentive device (Masulis and Mobbs, 2016, 2014; Jiang et al., 2015).

Masulis and Mobbs (2014), for example, show that directors with multiple directorships distribute their time and effort unequally across their directorships. Directors tend to prioritize their efforts at firm's who award them greater prestige. Reputation incentives can significantly increase an outside directors' board meeting attendance and involvement in committees, decrease the willingness to relinquish

directorships and lead to better firm outcomes. Masulis and Mobbs (2016) find fewer actions known to hurt director reputation at directorships ranked more highly by outside directors. The evidence suggests, that reputation incentives can greatly affect how directors allocate their time and affect board effectiveness. Jiang et al. (2015) provide further evidence and show that more reputable directors are also more likely to dissent, that dissension is rewarded in the market for outside directors and that dissension is linked to better corporate governance and market transparency.

While the evidence highlights the importance of reputation as an incentive device, reputational damage can also negatively affect a directors' career. For example, Fich and Shivdasani (2007) show that following a lawsuit, directors experience a significant decline in the number of their outside board positions. This decline in the number of board positions is more pronounced if the allegations are more severe or the director bears greater responsibility. Moreover, directors with boards seats at firms facing fraud allegations are more likely to lose their board positions at firms with stronger governance. More recently, Fos and Tsoutsoura (2014) show that proxy contests, as a result of poor director performance, can be equally damaging to a director's future career prospects. Following proxy contests, directors experience a significant decline in the number of board seats at the firm targeted with the proxy fight, but also at other non-targeted firms. Reductions in cash dividends (Kaplan and Reishus, 1990), financial and disclosure-related fraud (Brochet and Srinivasan, 2014) and excessive executive pay (Ertimur et al., 2012) have been shown to be similarly damaging to a directors' career.

Overall, the recent evidence clearly outlines the important role of reputation in the labour market for outside directors. The research suggests that reputation serves as an incentive for directors to be diligent monitors, can lead to better firm outcomes and that actions resulting in reputational damage for the firm or the director significantly affect the director's future career. However, given the difficulties to directly measure and test reputation, many questions around the costs and benefits

of director reputation remain unanswered.

2.2.2 Existing measures and motivation

While the research focussing on particular damaging events has produced relatively clear empirical evidence, identifying measures of director reputation remains difficult. Masulis and Mobbs (2011) construct a measure of director incentives for inside directors based on their outside board responsibilities. The authors argue that directors are incentivized to be effective monitors in order to protect their reputational capital. While the measure is an interesting first step to study the reputational capital of directors, it is restricted to inside directors.

Masulis and Mobbs (2014) introduce a more general measure of reputation incentives for outside directors. They argue that firm size can serve as an important source of prestige and is directly related to a directors reputation. Following their rationale, directors derive stronger incentives from sitting on the board of larger firms because those firms award them greater visibility and news coverage. Moreover, sitting on the board of a large and prestigious firm can serve as a signal of competence and certification in the labour market for directors. Masulis and Mobbs (2014) contrast reputation incentives directors derive from high- and low-capitalization firms and aggregate them at the board level. Masulis and Mobbs (2014) show that directors distribute their time and energy unequally based on the relative prestige they derive from a board position. The authors also show that when a directorship increases in its ranking, the director's board attendance improves and performance improves. On the other hand, directors are less willing to step down from a board position of a prestigious firm, even if these firms perform poorly. The same methodology is adopted by Masulis and Mobbs (2016) and Sila et al. (2017) and related to firm-level outcomes and the informativeness of stock prices respectively.

In spite of its intuitive and appealing nature, the measure of Masulis and Mobbs (2014) only applies to outside directors with multiple directorships. Therefore, it is

still severely limited as a general measure of director reputation incentives. Moreover, because director reputation incentives are aggregated at the board level, the methodology cannot be easily adopted and applied in the context of outside director appointments.

In a related study, Jiang et al. (2015) adopt a measure of a director's media mentions as a primary tool to study reputation. While there is some validity in this approach, it would be difficult to adopt as a general measure of director reputation. The measure requires a director be sufficiently known to be covered by mainstream media outlets and it also assumes that there is not underlying bias in the coverage of certain regions, industries and companies.

Overall, none of the existing measures can easily be adopted in the context of outside director appointments to study director reputation. Instead, this study aims to design a sample of outside director appointments that allows us to exploit an exogenous shock in a director's reputation and study its implications.

The rationale for the methodology employed in this paper is the following. Because we are interested in the role of director reputation and not differences between groups of directors that are inherently different (CEOs and non-CEOs), we take a different approach than Fich (2005) and Fahlenbrach et al. (2010). We use CEO awards as an identification tool to identify individuals that will retrospectively have enjoyed similar careers. They are suitable for a study of director reputation for several reasons.

First, CEO award winners are a subset of highly reputable outside directors. As discussed in Fahlenbrach et al. (2010), CEOs are among the most demanded outside board members. CEO award winners are a subset of successful CEOs, with longer than average tenure (Malmendier and Tate, 2009) and a track record of good performance (Ammann et al., 2016). Even more so than the average CEO, award winners will have established a reputation as decision experts and are thus attractive candidates to fill vacant board positions.

Second, based on past performance, agents form and establish expectations about an individual's future performance (Sorenson, 2014; Dimov et al., 2007; Jensen and Roy, 2008). This notion fits well in the context of boards and the rationale outlined in Fama and Jensen (1983). CEO award winners, in particular, have established a reputation as successful CEOs. The CEO award serves as a public signal that further spotlights their success and achievements. Further, given their long tenure as CEOs (Malmendier and Tate, 2009; Ammann et al., 2016), their financial incentives are negligible, making this subset of directors particularly suitable for a study of director reputation (Yermack, 2004). Instead, notable board positions add to the profile of a CEO award winner and can be viewed as reputation enhancing.

Third, due to their extended tenure as CEO of large public firms, the financial incentives of CEO award winners are negligible. This is particularly true at the time when they are still active CEOs. As such, reputation or a preservation and enhancement of the existing reputation is the primary concern of CEO award winners. This makes them particularly suitable for a study of director reputation (Yermack, 2004).

Finally, because CEO award winners have such a high reputation, they have particularly strong incentives to protect this reputation (Diamond, 1989). Poor performance (Yermack, 2004), fraud (Fich and Shivdasani, 2007) or board oversight failures (Fos and Tsoutsoura, 2014) reflect badly on the CEOs reputation and may cause them to lose their board seats and impede their ability to obtain directorships in the future. These attributes make them especially suitable subjects of study in respect to director reputation.

We argue that CEO awards contribute significantly to a director's reputation and serve as an important signal in the market for corporate directors. We exploit this exogenous shift in a director's reputation and examine whether investors react observably different after a director has won a CEO award. While the main focus of this study is the short-term effect around director appointment announcements,

we also focus on the long-term implications of appointing CEO award winners.

2.2.3 Empirical strategy

We follow the standard methodology of Dodd and Warner (1983) and estimate cumulative abnormal returns using the market model for 1 year of trading data prior to the event window². For our univariate analysis we estimate cumulative abnormal returns for a 3-day (-1,1), 5-day (-2,2) and 11-day (-5,5) event window. As part of the multivariate analysis, we then estimate the following regression model³

$$CAR_i = \alpha_0 + \beta_1 CEO_i + \beta_2 First\ Award_i + \beta_3 CEO_i \times First\ Award_i + \beta_4 X_i' + \mu_i, \quad (2.1)$$

CAR_i is the 3-day (-1,1) cumulative abnormal return of director announcement i . CEO is an indicator variable equal to 1 if the director is the CEO of another firm at the time of appointment. $First\ Award$ is an indicator variable equal to 1 if the director has won an award at the time of the appointment. $CEO \times First\ Award$ is an interaction effect that is equal to 1 if the director is the CEO of another firm and has won an award at the time of appointment. Control variables (X_i) include director and firm characteristics.

To ensure the robustness of our results we re-estimate a similar model for a subset of 237 CEO outside director appointments

$$CAR_i = \alpha_0 + \beta_1 First\ Award_i + \beta_2 X_i' + \mu_i, \quad (2.2)$$

Fich (2005) and Fahlenbrach et al. (2010) find evidence of a certification effect associated with the appointments of CEOs. In a similar way, investor reactions could differ according to the director's career stage. We include control variables to capture different stages of the director's career (*Other Chief Executive* and *Other Executive*)

²For a more recent and thorough review of the methodology see Kothari and Warner (2008).

³We include the pre-announcement periods in our estimation window because it is likely that the upcoming director appointment is known to the public before its official announcement by the company. However, we provide additional results for a (0,2) and (0,3) event window to show that the effect is robust if we exclude the pre-appointment period. The results are presented in the Appendix A

and the total number of awards as a measure of ability (*Total Number of Awards*). We include a control variable for gender (*Female*) because female executives have been shown to behave differently compared to their male counterparts. Faccio et al. (2016), for example, show that firms run by female CEOs have lower leverage, are less volatile and have a higher chance of survival. Further, Chevalier and Ellison (1999) provide an example of how mutual fund managers who attended higher-SAT undergraduate institutions earn higher risk-adjusted returns throughout their career. As a proxy for academic excellence and ability, we include an indicator variable for whether or not the director received part of his or her education in an Ivy League institution (*Ivy League*) and whether or not the director has a Ph.D or equivalent (*Ph.D./J.D./M.D*).

Additional controls include an indicator variable for whether or not the director is a founder or co-founder (*Founder/CoFounder*), a control for whether or not the appointee works in the US (*International Appointment*). We include the total number of board seats held by the director (*Number of Directorships*) (Fich and Shivdasani, 2006; Falato et al., 2015) and an indicator variable to identify appointments of industry CEOs (*Industry CEO*)⁴. To control for firm characteristics, we include a measure of firm size ($LN(Assets)$), firm value (*Market-to-Book*), research intensity (*R&D Expense*) and the contemporaneous (*ROA*) and lagged operating profitability (ROA_{t-1})⁵.

Finally, we evaluate the long-term implications around director appointments. In a first step, we analyze stock market long-term performance before the appointment to test whether this small group of reputable directors intentionally join the boards of firms that perform well. Secondly, we test for signs of long-term outperformance following the appointment. We look at long term excess returns for the 12-months, 24-months and 36-months event window pre- and post-appointment. We

⁴We define industries using the Fama-French 48 industry classifications. Using the Fama-French 12 industry classification or 2-digit SIC Codes does not change our results

⁵Definitions of all variables throughout this study can be found in Appendix A

use a calendar-time approach and calculate monthly calendar-time portfolio returns for the director appointments in our sample (Dutta and Jog, 2009; Kothari and Warner, 2008). However, the empirical validity of the traditional three factor model has been strongly challenged by Carhart (1997) and Novy-Marx (2013). Therefore, we calculate the monthly abnormal return by estimating the intercept of a calendar-time portfolio for the more recently introduced five factor model (Fama and French, 2015). Fama (1998) recommends using weighted least squares (WLS) or comparable methods to weight calendar months by the number of event observations. We estimate the Fama-French five factor model (Fama and French, 2015) where the weighting factor is based on the number of assets in the monthly portfolio.

$$AR_{it} = R_{it} - R_{ft} - \beta_{i1}(R_{mt} - R_{ft}) - \beta_{i2}SMB_t - \beta_{i3}HML_t - \beta_{i4}RMW_t - \beta_{i5}CMA_t, \quad (2.3)$$

where AR_{it} or Alpha is the monthly abnormal return of the calendar-time portfolio, R_{it} is the return on a security i , R_{ft} is the risk-free return, R_{mt} is the return on a value-weighted market portfolio, SMB_t is the return on a diversified portfolio of small stocks minus the return on a diversified portfolio of big stocks, HML_t is the difference between the returns on diversified portfolios of high and low book-to-market (B/M) stocks, RMW_t is the difference between the returns on diversified portfolios of stocks with robust and weak profitability and CMA_t is the difference between the returns on diversified portfolios of stocks of low and high investment firms which are referred to as conservative-aggressive.

As pointed out by Fama (1998) and Kothari and Warner (2008), this methodology has distinct advantages over methodologies relying on buy-and-hold abnormal return to evaluate long-term performance. The calendar-time approach of Fama and French (1993) allows us to take into account cross-correlations across event firms and the return distribution provides a close approximation of the normal distribution.

2.3 Data and descriptive statistics

We use a hand-collected list of CEO awards, in line with Malmendier and Tate (2009) and Shemesh (2014). The awards are from different sources such as *Business Week*, *Financial World*, *Forbes*, *Chief Executive*, *Morningstar.com*, *Electronic Business Magazine*, *Industry Week* and the *Harvard Business Review*. In total, our sample includes 839 CEO awards between 1975-2013. After accounting for those CEOs who have received multiple awards, we identify 582 individual award-winning CEOs.

Using the names of those individual award-winning CEOs, we search the *Lexis/Nexis* data retrieval system for newspaper articles and press releases covering director appointments. Similar to Fich (2005), we impose two restrictions. First, we exclude appointments that were announced alongside other major company news such as dividend announcements, the appointment or retirement of executives and directors or proposed acquisitions. Second, we exclude appointments that constitute a director re-election. Following this procedure yields a total of 920 outside director appointments for 269 individual directors.

While the choice of control variables is motivated by those used in Fich (2005), our final sample is distinctively different. Fich (2005) collects appointments for directors of *Fortune 1000* companies and examines whether investors react more positively to the appointment of some directors than others. The main finding is that investors react more positively to the appointment of a director who is CEO at another firm. The sample in this study, on the other hand, collects outside director appointments for a sample of directors that all end up winning a CEO award. The goal is not to compare different groups of directors, but instead compare announcement returns across different stages of a director's career.

For every appointment we collect information from sources such as *Who's Who in Finance and Business* and *NNDB*, accounting data from *Compustat* and stock market data from *CRSP*. The variables of interest are the interaction term $CEO \times First\ Award$ and $First\ Award$. The former variable is equal to 1 if the director is the

CEO of a company and has won a CEO award at the time of his appointment. The variable *First Award* is used within the subsample of CEO director appointments and is equal to 1 if an appointed director has won a CEO award. Further, we include dummy variables to control for a director's different career stages. We include a variable equal to 1 if the appointed director is a chief executive but not the CEO (*Other Chief Executive*) and we include a variable that is equal to 1 if the appointed director is a non-chief executive (*Other Executive*). Moreover, we use indicator variables to control for gender (*Female*), whether or not the director is a founder or co-founder of the company (*Founder/CoFounder*) and whether or not the director's main employee is outside the US (*International Appointment*). To take into account whether or not directors hold additional outside board positions, we include two variables: i) the total number of outside board seats (*Number of Board Seats*) and ii) an indicator variable if the director holds more than 4 outside board seats at the time of his or her appointment (*More Than 4 Board Seats*). Finally, we include two variables to control for the directors level of education. First, we include an indicator variable equal to 1 if the director holds a Ph.D., J.D. or M.D. and second we include an indicator variable equal to 1 if the director has completed at least parts of his or her education at an Ivy League institution.

Finally, we include total assets (*Assets*), market capitalization (*Market Capitalization*), a variable to capture market valuation compared to the firms book value defined as market capitalization over book equity (*Market-to-Book*). We include a firms research and development costs calculated as R&D expenditure over lagged assets (*R&D Expense*). Lastly, we include a return on asset as a measure of firm profitability defined as operating income before depreciation over lagged assets (*ROA*).

Our final sample for which all required information is available consists of 432 first-time director appointments of 238 individual directors from 1977 to 2015. We then follow the standard methodology of Dodd and Warner (1983) and estimate cumulative abnormal returns (CARs) using the market model for 1 year of trading

Table 2.1: Director characteristics

The table below reports director-level descriptive statistics. The sample consists of 432 outside director appointments of 238 individual directors from 1977 to 2015. For every appointment we collect information from sources such as *Who's Who in Finance and Business* and *NNDB*. The number of observations is reported in column (1), mean and median in column (2) and (3) respectively, standard deviation in column (4) and the 10th and 90th percentile in column (5) and (6).

	Obs. (1)	Mean (2)	Median (3)	Std. Dev. (4)	p10 (5)	p90 (6)
CEO	430	0.584	1	0.494	0	1
Other Chief Executive	430	0.042	0	0.201	0	0
Other Executive	430	0.107	0	0.309	0	1
Retired	430	0.265	0	0.442	0	1
Female	429	0.096	0	0.294	0	0
Founder/CoFounder	430	0.051	0	0.221	0	0
International Appointment	432	0.049	0	0.215	0	0
Number of Board Seats	430	2.177	2	1.337	1	4
More Than 4 Board Seats	432	0.176	0	0.381	9	1
PhD/J.D./M.D.	430	0.126	0	0.332	0	1
Ivy League	430	0.288	0	0.454	0	1
First Award	432	0.567	1	0.496	0	1
Total Number Awards	432	1.479	1	0.975	1	3
2 Or More Awards	432	0.269	0	0.444	0	1
3 Or More Awards	432	0.123	0	0.328	0	1
4 Or More Awards	432	0.060	0	0.238	0	0

data prior to the event window⁶.

2.3.1 Director characteristics

Information about the director sample is presented in Table 2.1. Overall, at the time of the appointment, 4% of the directors are other non-chief executives, 11% are chief executives but not CEOs, 58% are active CEOs and 27% are retired. The majority of award winners in our sample are male (>90%). Approximately 5% of the appointees are founders or co-founders and a similar proportion constitutes appointments of individuals who primarily work outside the US. Moreover, at the time of appointment, the average director holds 2.2 corporate board seats. In respect to education, approximately 13% of the directors in the sample hold a Ph.D., J.D. or M.D. and almost 30% have received at least part of their education in an Ivy League institution.

Further, we find that just over half (57%) of the appointments occur after the

⁶We provide results for the alpha and beta coefficient estimated using the market model and 1 year of trading data to show that the estimation period is suitably long. We also estimate CARs with market-adjusted returns to eliminate the possibility that biased market model parameters are driving the results. The results in our main analysis are robust to the use of market-adjusted returns.

director has won the first CEO award. In total, the directors in our sample win approximately 1.5 awards throughout their career, 27% are multiple award winners (i.e. they won at least 2 or more awards throughout their career), 12% have won 3 or more awards and 6% have won 4 or more awards.

2.3.2 Appointing and appointee firm characteristics

Descriptive statistics for the appointing and appointee firm are presented in Table 2.2. As expected, we find that overall award winners are on average appointed to very large firms (\$46 billion in total assets and \$29 billion in market capitalization). The average appointing firm has a market-to-book value of 3.4, research and development expenses of 6% and a return on asset of 13%. The cumulative abnormal return for director appointments is positive but insignificantly different from zero across different event windows. We find a 0.3%, 0.6% and 0.4% for the 3-day, 5-day and 11-day event window surrounding the director appointment.

Next, we focus on the firms of CEOs who are appointed as outside directors. We find that the average appointee firm is smaller than the average appointing firm (\$46,606 vs. \$25,627) in our sample. However, looking at the median we find exactly the opposite (\$6,443 vs. \$9,489), implying that a small number of very large firms significantly impacts the average firm size of the appointing firms. This fact is further supported by the high standard deviation in respect to total assets. In contrast to appointing firm CARs, we observe negative, but insignificant, negative cumulative abnormal returns if a CEO is appointed as outside director. The announcement returns are between -0.5% and -0.6% across the different event windows.

Finally, we assess multicollinearity within our regression model. Multicollinearity is a problem and can severely affect regression estimates, if two or more variables are determined by a linear combination of other variables in a regression model. We employ two commonly used measures to assess if multicollinearity is a cause for concern: i) variance inflation factor (VIF) and ii) tolerance. If all variables are

Table 2.2: Appointing and appointee firm characteristics

The table below provides descriptive statistics for all appointing and appointee firm characteristics used in the main analysis. The sample consists of 432 outside director appointments of 238 individual directors from 1977 to 2015. Balance sheet data is from *Compustat* and stock market data from *CRSP*. Cumulative abnormal returns are computed using the market model for 1 year of trading data prior to the event window around the director appointment. The number of observations is reported in column (1), mean and median in column (2) and (3) respectively, standard deviation in column (4) and the 10th and 90th percentile in column (5) and (6).

	Obs. (1)	Mean (2)	Median (3)	Std. Dev. (4)	p10 (5)	p90 (6)
Appointing firm						
<u>Firm characteristics:</u>						
Assets (\$M)	423	46,606	6,443	120,034	282	125,451
Market Capitalization	423	29,256	6,495	63,777	429	70,419
Market-to-Book	423	3.382	2.324	3.669	0.708	7.004
R&D Expense	417	0.059	0.005	0.183	0.000	0.138
ROA	423	0.133	0.146	0.113	0.013	0.253
ROA _(t-1)	417	0.126	0.144	0.118	0.000	0.247
<u>Announcement returns:</u>						
CAR[-1,1]	407	0.003	0.002	0.038	-0.038	0.049
CAR[-2,2]	407	0.006	0.004	0.048	-0.048	0.058
CAR[-5,5]	408	0.004	0.001	0.079	-0.077	0.088
Appointee firm						
<u>Firm characteristics:</u>						
Assets (\$M) (Appointee)	222	25,627	9,489	60,330	927	49,539
Market Capitalization (Appointee)	222	21,332	8,786	35,240	1,356	60,547
Market-to-Book (Appointee)	221	3.986	2.463	4.221	1.156	8.765
R&D Expense (Appointee)	220	0.047	0.006	0.090	0.000	0.149
ROA (Appointee)	221	0.149	0.145	0.084	0.035	0.264
ROA _(t-1) (Appointee)	220	0.149	0.143	0.082	0.037	0.254
<u>Announcement returns:</u>						
CAR[-1,1] (Appointee)	220	-0.006	-0.005	0.028	-0.040	0.025
CAR[-2,2] (Appointee)	219	-0.005	-0.006	0.040	-0.055	0.040
CAR[-5,5] (Appointee)	219	-0.006	-0.009	0.056	-0.070	0.058

orthogonal to each other the VIF and tolerance are equal to 1. A tolerance of less than 0.1 and equivalently an VIF of greater or equal to 10, on the other hand, are problematic and indicate multicollinearity is an issue. We find a mean VIF of 1.56 and no variables pass the threshold. The results are presented in Table ??.

2.4 Investor reaction to director appointments

The aim of this section is to evaluate whether announcement returns to director appointments differ according to the reputation of the appointed director. For example, Fich (2005) and Fahlenbrach et al. (2010) document positive announcement returns to the appointment of CEO directors. They argue that investors react positively to the announcement of a CEO director because a CEO provides a certification benefit for the appointing firm and because the CEO, through his innate ability and expertise, can help the firm realize its growth potential. This study takes a different

approach. We identify CEO award winners and focus on their appointments as outside directors. This strategy allows us to construct a sample of directors who will all become CEOs and win a CEO award throughout their career. Our expectation is, that their reputational capital should be highest at the point when they are active CEOs of a firm and have won a CEO award. To test this, we collect director appointments across different stages of CEO award winners career, i.e. before and after the director became CEO and before and after the director won the first CEO award. In particular, we contrast announcement returns across three different stages of the director’s career (*Other Executive* vs. *Other Chief Executive* vs. *CEO*) and before and after the director wins the first CEO award (*First Award*).

2.4.1 Univariate analysis

First, we look at univariate statistics comparing announcement returns for different subsets of directors. We report mean and median cumulative abnormal returns across the 3-day, 5-day and 11-day event window. The results are presented in Table 2.3. Univariate results for CEO directors are presented in Panel A, those directors who have won a CEO award in Panel B and those that are CEOs and have won an award in Panel C.

The univariate results are in line with our expectations. We find more positive announcement returns for the appointment all three groups of directors: i) directors who are CEOs ii) directors who have won an award and iii) directors who are CEOs and have won a CEO award. Although the announcement returns for the appointment of an outside director who is a CEO (Panel A) and an outside director who has won a CEO award (Panel B) are more positive, the differences in announcement returns are not statistically significant. Most importantly, however, we find that the appointment of directors who are CEO and have won an award generates significantly more positive announcement returns. We find statistically significant and economically meaningful differences (0.85% vs. 0.17%) in announcement re-

Table 2.3: Appointing firm CAR's: Univariate analysis

The table below provides descriptive statistics for all appointing and appointee firm characteristics used in the main analysis. The sample consists of 432 outside director appointments of 238 individual directors from 1977 to 2015. Balance sheet data is from *Compustat* and stock market data from *CRSP*. Cumulative abnormal returns are computed using the market model for 1 year of trading data prior to the event window around the director appointment. The number of observations is reported in column (1), mean and median in column (2) and (3) respectively, standard deviation in column (4) and the 10th and 90th percentile in column (5) and (6).

Panel A	Outside director is CEO Mean (Median) (1)	Outside director is not CEO Mean (Median) (2)	t-Value (t-test) (3)	z-Value (Wilcoxon test) (4)
CAR[-1,1]	0.0060 (0.0025)	-0.0002 (0.0001)	1.614	1.372
CAR[-2,2]	0.0074 (0.0060)	0.0035 (0.0002)	0.8197	1.430
CAR[-5,5]	0.0082 (0.0043)	-0.0007 (-0.0019)	1.125	0.970
Panel B	Outside director is award-winner Mean (Median) (1)	Outside director is not award-winner Mean (Median) (2)	t-Value (t-test) (3)	z-Value (Wilcoxon test) (4)
CAR[-1,1]	0.0035 (0.0024)	0.0033 (0.0011)	0.0655	0.373
CAR[-2,2]	0.0073 (0.0058)	0.0039 (0.0033)	0.7086	0.518
CAR[-5,5]	0.0074 (0.0011)	0.0009 (-0.0050)	0.8265	0.509
Panel C	Outside director is CEO and award-winner Mean (Median) (1)	Outside director is not CEO and not award-winner Mean (Median) (2)	t-Value (t-test) (3)	z-Value (Wilcoxon test) (4)
CAR[-1,1]	0.0085 (0.0057)	0.0017 (0.0002)	1.775*	1.969**
CAR[-2,2]	0.0116 (0.0084)	0.0038 (0.0015)	1.789*	1.979**
CAR[-5,5]	0.0172 (0.0118)	0.0002 (-0.0030)	1.955**	1.858*

turns in the 3-day event window for the award-winning CEOs in our sample. An announcement return of 0.85% translates into an increase in market capitalization of approximately \$249 (\$55) million for the average (median) appointing firm in our sample. The documented increase in market value is even more pronounced for the 5-day and 11-day event window with value effects of approximately \$339 (\$75) million and \$503 (\$112) million respectively. We argue that those are the directors with the highest relative reputation. They derive reputation and status from their position as CEO of another firm and from the CEO award. The CEO award can be viewed as a public signal of the CEO's quality and can thus considerably increase the CEOs reputation.

2.4.2 Multivariate analysis

Next, we test whether our findings are robust in a multivariate framework. We estimate a simple regression model with the 3-day cumulative abnormal return as the dependent variable. The variable of interest is an interaction term equal to one if the director is a CEO and has won a CEO award ($CEO \times First\ Award$) at the time of appointment. We estimate five different models. The results for the baseline model are presented in column (1). In the second column (2), we control for additional director-level variables such as founder or co-founder status of the director (*Founder/CoFounder*), whether or not the appointed director's primary work is outside the US (*International Appointment*) and the number of board seats (*Number of Board Seats*). We include founder status in our model because investors might view the appointment of a founder or co-founder differently to the appointment of a non-founder. For example, a founder might have a higher equity ownership than non-founding directors and thus have a different perspective on short- and long-term strategy. In a similar fashion, investors might react differently to the appointment of a foreign or international director. Masulis et al. (2012) analyse the costs and benefits associated with foreign (or international) directors. Among

other things, they find that the presence of foreign directors can improve cross-border M&A outcomes. On the other side, they also find that the board meeting attendance of foreign directors is low and that firms with foreign directors tend to exhibit lower performance. Furthermore, the number of board seats has been widely discussed and applied as a control variable in the context of boards. It is often referred to as a director or board “busyness” indicator (Fich and Shivdasani, 2006; Field et al., 2013; Ferris et al., 2003). In the third column (3), we further control for the educational level of the appointed director (*Ph.D./J.D./M.D.* and *Ivy League*) to capture potential differences in ability. In the fourth column (4), we add an indicator variable to control for whether or not the appointed director is a CEO of a firm in the same industry. Appointing a CEO from the same industry could be viewed positively in the sense that this director has a high level of industry-specific knowledge which could be valuable for the firm. Finally, in column five (5), we replace the number of board seats variable with a variable that specifically identifies directors that can be considered “very busy” (*More Than 4 Board Seats*). Again, the appointment of these directors could be viewed considerably more negative because of their inability to attribute a lot of time and energy to their new board position. The results are reported in Table 2.4.

The results of our multivariate analysis are in agreement with the univariate results. We find evidence that, across our sample, investor reactions are significantly stronger for the appointments of CEOs who have won a CEO award. The premium attached to announcements of this subset of directors ($CEO \times FirstAward$) ranges from 2.02% to 2.10% (column (1) to column (6) in Table 2.4). Our results are highly significant at the 1% level ($p < 0.000$). Our findings provide direct evidence that investors recognize the CEO award as a reputation-enhancing mechanism or event and react significantly more positive to the appointment of a CEO award winner. For the average (median) firm, the documented short-term value effect is equivalent to \$591 (\$131) to \$614 (\$136) million.

Table 2.4: Determinants of appointing firm CAR's: First CEO award

This table reports regression results with the 3-day cumulative abnormal return associated with an outside director appointment as dependent variable. The sample consists of 432 outside director appointments of 238 individual directors from 1977 to 2015. *t*-statistics given in parentheses are based on standard errors corrected for heteroskedasticity and director-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	CAR[-1,1]				
	(1)	(2)	(3)	(4)	(5)
CEO \times First Award	0.0209*** (2.78)	0.0202*** (2.66)	0.0204*** (2.63)	0.0203*** (2.62)	0.0207*** (2.66)
CEO	-0.0142** (-2.00)	-0.0138* (-1.92)	-0.0137* (-1.91)	-0.0142* (-1.96)	-0.0147** (-2.03)
First Award	-0.0126* (-1.94)	-0.0115* (-1.75)	-0.0115* (-1.72)	-0.0114* (-1.72)	-0.0119* (-1.81)
Total Number Awards	-0.0019 (-0.89)	-0.0019 (-0.82)	-0.0020 (-0.85)	-0.0020 (-0.86)	-0.0019 (-0.86)
Other Chief Executive	-0.0028 (-0.29)	-0.0035 (-0.35)	-0.0034 (-0.34)	-0.0032 (-0.32)	-0.0030 (-0.31)
Other Executive	-0.0205*** (-3.12)	-0.0212*** (-3.22)	-0.0211*** (-3.18)	-0.0211*** (-3.19)	-0.0208*** (-3.15)
Female	-0.0180*** (-3.46)	-0.0183*** (-3.43)	-0.0185*** (-3.37)	-0.0188*** (-3.35)	-0.0190*** (-3.39)
Founder/CoFounder		-0.0016 (-0.22)	-0.0018 (-0.26)	-0.0017 (-0.24)	-0.0019 (-0.27)
International Appointment		-0.0020 (-0.30)	-0.0017 (-0.24)	-0.0012 (-0.16)	-0.0014 (-0.20)
Number of Board Seats		-0.0013 (-0.84)	-0.0013 (-0.91)	-0.0013 (-0.86)	
More Than 4 Board Seats					-0.0065 (-1.37)
Ph.D./J.D./M.D.			-0.0033 (-0.62)	-0.0032 (-0.61)	-0.00330 (-0.61)
Ivy League			0.0012 (0.29)	0.0016 (0.37)	0.0016 (0.35)
Industry CEO				0.0062 (0.61)	0.0058 (0.56)
LN(Assets)	-0.0015 (-1.59)	-0.0015 (-1.58)	-0.0016 (-1.58)	-0.0015 (-1.48)	-0.0015 (-1.52)
Market-to-Book	-0.0011* (-1.70)	-0.0011* (-1.77)	-0.0011* (-1.77)	-0.0012* (-1.78)	-0.0012* (-1.81)
R&D Expense	-0.0033 (-0.15)	-0.0012 (-0.06)	-0.0005 (-0.02)	-0.0002 (-0.01)	-0.0017 (-0.08)
ROA	0.0669* (1.96)	0.0675* (1.93)	0.0666* (1.92)	0.0673* (1.94)	0.0692** (2.00)
ROA _(t-1)	-0.0237 (-0.59)	-0.0234 (-0.57)	-0.0227 (-0.55)	-0.0219 (-0.53)	-0.0245 (-0.59)
Intercept	0.0318*** (2.61)	0.0341*** (2.75)	0.0344*** (2.78)	0.0334*** (2.65)	0.0328*** (2.65)
Observations	398	398	398	398	398
R ²	0.067	0.069	0.070	0.071	0.073

Next, we look at the different career stages included in our model (*Other Executive* vs. *Other Chief Executive* vs. *CEO*). Our findings show that the positive effect is confined to CEO award winners. In comparison, investor reactions to the appointment of a CEO who has not won an award, are significantly more negative. A similar effect can be observed for the appointments of directors who are non-chief executives (*Other Executive*). The coefficient on *Other Chief Executive* is also negative but not significant⁷.

Further, we find a significantly negative effect for *First Award*. This variable predominantly captures the effect of CEO award winners who are no longer, i.e. retired CEOs. The variable includes the appointments of directors who have ceased their CEO position and assumed other non-CEO positions or are retired⁸.

With respect to our control variables, we find that the appointment of female directors (*Female*) is viewed especially critically by shareholders. The announcement returns for female directors are almost 2% lower than those for male directors and highly significant ($p < 0.000$). To better understand the drivers behind the negative coefficient we provide additional results in the Appendix A.

First, we compare additional descriptives for female and non-female directors. We find the announcement returns are, as predicted by the negative regression coefficient, predominately negative. The minimum returns on female directors is of the same magnitude as the minimum return on all other directors (-9.16% vs. -9.36%). However, it is apparent that the reactions on the other end of the distribution differ considerably. Looking at the maximum announcement return as well as the 75th and 90th percentile highlights that the positive returns are higher for male directors. The documented effect is surprising but is in line with what has been documented

⁷However, within our sample, only 18 appointments fall into this category.

⁸It is important to consider that the indicator variables *CEO*, *Other Chief Executive* and *Other Executives* used to capture the “career stage effect” are in reference to the career stage *Retired*. We have chosen *Retired* as the reference in order to uncover differences in investor reactions to the appointment of non-chief executives, other chief executives and the CEOs. Our results highlight that investors reactions differ systematically according to the directors career stage.

for the appointments of female CEOs. Lee and James (2007) find significantly more negative stock market reactions to female CEO appointments.

Next, we explore whether the appointment returns on some individual female directors are driving our results. We find that, out of 21 individual female directors in the sample, the average (median) appointment returns are negative for 15 (13) and positive for 6 (8). However, we fail to observe heavily negative announcement returns for any one female director. A possible explanation is, that especially for extremely large firms, the pool of female directors with the right profile is extremely small and that in an attempt to create gender-diverse boards, firms appoint female directors whose expertise does not match the core business of the appointing firm and is thus viewed as suboptimal by investors.

Finally, looking at firm-level variables, we find a negative association with the firm's market-to-book ratio and a positive association with the firm's current operating profitability.

2.4.3 Multiple award winners

Having shown that investors react more positively if the appointed director is a CEO award winner, a natural follow-on question is whether the observed premium increases with the number of CEO awards a CEO has won. While we expect that winning a second CEO award may still further increase a CEO's reputation, the second award does not carry the same weight and importance as the first CEO award. Our three variables of interest to measure this effect are: an indicator variable equal to 1 if the director has won two or more awards (*2 Or More Awards*), an indicator variable equal to 1 if the director has won 3 or more awards (*3 Or More Awards*) and another indicator variable equal to 1 if the director has won 4 or more awards (*4 Or More Awards*). We interact those variables with an indicator variable indicating that the director is a CEO (*CEO*). For consistency, we include the same set of control variables as in column (5) in 2.4. The results are presented in Table

Table 2.5: Determinants of appointing firm CAR's: Multiple Awards

This table reports regression results with the 3-day cumulative abnormal return associated with an outside director appointment as dependent variable. The sample consists of 432 outside director appointments of 238 individual directors from 1977 to 2015. *t*-statistics given in parentheses are based on standard errors corrected for heteroskedasticity and director-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	CAR[-1,1]		
	(1)	(2)	(3)
2 Or More Awards	0.0001 (0.01)		
CEO \times 2 Or More Awards	-0.0034 (-0.38)		
3 Or More Awards		0.0059 (0.39)	
CEO \times 3 Or More Awards		-0.0083 (-0.53)	
4 Or More Awards			-0.0147 (-1.40)
CEO \times 4 Or More Awards			0.0065 (0.45)
CEO	0.0017 (0.33)	0.0017 (0.39)	0.0004 (0.09)
Other Chief Executive	0.0027 (0.28)	0.0029 (0.30)	0.0021 (0.22)
Other Executive	-0.0119** (-1.98)	-0.0117* (-1.95)	-0.0126** (-2.08)
Female	-0.0188*** (-3.41)	-0.0184*** (-3.33)	-0.0192*** (-3.53)
Founder/CoFounder	-0.0013 (-0.20)	-0.0015 (-0.22)	0.0005 (0.07)
International Appointment	-0.0013 (-0.19)	-0.0010 (-0.16)	-0.0011 (-0.16)
More Than 4 Board Seats	-0.0069 (-1.41)	-0.0069 (-1.41)	-0.0068 (-1.39)
Ph.D/J.D./M.D.	-0.0024 (-0.42)	-0.0021 (-0.36)	-0.0025 (-0.44)
Ivy League	0.0015 (0.34)	0.0015 (0.36)	0.0014 (0.33)
LN(Assets)	-0.0015 (-1.51)	-0.0014 (-1.51)	-0.0014 (-1.46)
Market-to-Book	-0.0010* (-1.67)	-0.0010* (-1.67)	-0.0010* (-1.68)
R&D Expense	-0.0034 (-0.15)	-0.0029 (-0.13)	-0.0037 (-0.17)
ROA	0.0633* (1.82)	0.0631* (1.80)	0.0633* (1.80)
ROA _(t-1)	-0.0251 (-0.62)	-0.0259 (-0.63)	-0.0251 (-0.61)
Intercept	0.0184 (1.64)	0.0177 (1.61)	0.0189 (1.64)
Observations	398	398	398
R ²	0.059	0.060	0.062

Overall, we find no evidence suggesting that the investor reaction increases with the number of awards a CEO has won. The coefficients on all our variables of interest are small and most importantly insignificant. As in our main analysis, we observe significantly lower announcement returns for the group of directors classified as *Other Executives*. Similarly, we continue to observe a highly negative coefficient for the

appointment of female directors. The effect is equivalent to almost 2%. Finally, operating profitability, measured as return on assets (*ROA*), has a slight positive effect on the stock price reaction while the relative value of the firm, measured as its market value to its book value (*Market-to-Book*), has a slightly negative effect. We conclude that the benefit from winning an additional award does not increase the director’s reputation in the same way as the first CEO award. Winning the first CEO award significantly improves the director’s profile and visibility, winning another award does not.

2.4.3.1 CEO director appointments

Our previous results could simply be driven by the fact that investors react more positively to the appointment of a CEO (Fich, 2005; Fahlenbrach et al., 2010). To further reduce the heterogeneity in our sample, we reduce it to a subset of CEOs. Within this subsample, we can now distinguish between CEOs (CEOs who have not yet won an award) and CEO award winners and test whether investors react more positively to the appointment of CEOs who have won an award. Our sample includes 237 CEO outside director appointments. We re-estimate our baseline regression using a similar set of control variables and use the 3-day cumulative abnormal return around the director appointment as the dependent variable. The results are reported in Table 2.6.

We include all variables we have included in our main analysis and estimate 4 different models. As before we control for gender, founder status, whether the appointed director primarily works outside the US, other board responsibilities, education and whether or not the appointed director is the CEO of a firm in the same industry. Finally, we include the same set of firm-level control variables.

The results further support our argument that investors attach a premium to the recruitment of directors who have won a CEO award. We find significantly more positive announcement returns between 0.92-0.97%. Across the different models the

Table 2.6: Determinants of appointing firm CAR's: CEO appointments

This table reports regression results with the 3-day cumulative abnormal return associated with the appointment of a CEO as outside director. The sample consists of 237 CEO outside director appointments. t - statistics given in parentheses are based on standard errors corrected for heteroskedasticity and director-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	CAR[-1,1]			
	(1)	(2)	(3)	(4)
First Award	0.0092** (2.08)	0.0094** (2.09)	0.0097** (2.12)	0.0097** (2.11)
Total Number Awards	-0.0022 (-0.84)	-0.0023 (-0.88)	-0.0023 (-0.88)	-0.0023 (-0.89)
Female	-0.0211 (-1.59)	-0.0215 (-1.62)	-0.0218 (-1.61)	-0.0222 (-1.61)
Founder/CoFounder	0.0008 (0.09)	0.0004 (0.04)	0.0003 (0.04)	0.0004 (0.04)
International Appointment	-0.0001 (-0.01)	-0.0012 (-0.14)	-0.0015 (-0.17)	-0.0011 (-0.12)
More Than 4 Board Seats		-0.0068 (-1.27)	-0.0068 (-1.26)	-0.0066 (-1.20)
Ph.D./J.D./M.D.			-0.0043 (-0.71)	-0.0043 (-0.70)
Ivy League			-0.0006 (-0.10)	-0.0002 (-0.04)
Industry CEO				0.0035 (0.31)
LN(Assets)	-0.0027** (-2.02)	-0.0026* (-1.96)	-0.0026* (-1.96)	-0.0026* (-1.82)
Market-to-Book	-0.0013 (-1.45)	-0.0013 (-1.54)	-0.0013 (-1.50)	-0.0013 (-1.47)
R&D Expense	0.0021 (0.05)	0.0027 (0.06)	0.0030 (0.07)	0.0019 (0.04)
ROA	0.0541 (1.44)	0.0556 (1.43)	0.0549 (1.41)	0.0549 (1.41)
ROA _(t-1)	-0.0276 (-0.59)	-0.0260 (-0.54)	-0.0256 (-0.53)	-0.0239 (-0.48)
Intercept	0.0308** (1.98)	0.0312** (1.99)	0.0318** (2.00)	0.0307* (1.81)
Observations	237	237	237	237
R ²	0.055	0.058	0.060	0.060

estimated coefficients are significant at the 5% level. The positive coefficient on *First Award* shows that investors recognize the CEO award as a reputation enhancing event and consider it when evaluating director appointments.

The average (median) size of the appointing firm in the CEO subsample is \$43,725 (\$8,581) billion implying a value effect for the average (median) firm of between \$402 and \$424 (\$79 and \$83) million . Interestingly, whether or not the appointed CEO is female or male is not important any more. Our results imply that the previously observed negative effect observed for female directors is centred around the appointment of non-CEO directors.

As before, we look at multiple award winners and do not find that various measures of winning multiple awards are related to announcement returns. We conclude that investors indeed recognize and value a directors reputation.

One concern throughout our analysis are the relatively low coefficients of determination (R^2 between 5.5% and 7%). However, the magnitude of the documented R^2 values is in line with those reported in other studies around director or board appointments. Shivdasani and Yermack (1999), Lin et al. (2003) and Davidson et al. (2004), for example, use CARs as their dependent variable in similar settings and document R^2 values of similar magnitude.

2.5 Investor reaction in the CEOs' own firms

In this section we look at the stock price reaction at the CEO's own firm. It is not clear how shareholders view a CEO's appointment as outside director. On the one hand, outside director appointments at large and prestigious firms could serve as signal of the CEO's quality, allow access to external resources and help promote the firm's strategic objectives. On the other hand, however, the appointment could also be judged as an event that will distract the CEO from the day-to-day operations of his own firm. Consistent with the notion that outside appointments of CEOs are viewed critically by shareholders, Fich (2005) documents that outside appointments

of active CEOs result, on average, in a decline in firm value of 0.64%. The reaction is considerably more negative if the CEO is not of retirement age (between 62 and 66).

After showing that reputation is valued by the shareholders of the appointing firm, we now examine whether CEOs who have won an award are looked upon more favourably when appointed as outside directors. We argue that shareholders may judge CEO award winners to be more capable and hence react more positively (or less negatively) to their appointments as outside directors.

We begin our analysis by looking at univariate results and compare cumulative abnormal returns at the CEO's firm around the 3-day, 5-day and 11-day event window. We then re-estimate our baseline regression using the 3-day cumulative abnormal returns for the CEO's own firm as our dependent variable. As before we include various director- and firm-level control variables. Univariate results are presented in Table 2.7 and multivariate results in Table 2.8.

Table 2.7: CEO's own firm CARs: Univariate analysis

This table presents univariate results for the 3-day, 5-day and 11-day cumulative abnormal return (CAR) around the appointments of CEOs as outside directors at the CEO's own firm. We report mean and median cumulative abnormal returns. The table compares CARs for CEOs who have won an award and those who have not. We report we report a *t*-test for means in column (3) and a Wilcoxon signed-rank test for medians in column (4).

	CEO is award winner	CEO is no award winner		
	Mean	Mean	t-Value	z-Value
	(Median)	(Median)	(t-test)	(Wilcoxon test)
	(1)	(2)	(3)	(4)
CAR[-1,1]	-0.0059 (-0.0055)	-0.0069 (-0.0050)	0.255	0.034
CAR[-2,2]	-0.0050 (-0.0066)	-0.0053 (-0.0048)	0.057	-0.052
CAR[-5,5]	-0.0094 (-0.0088)	-0.0037 (-0.0086)	-0.742	-0.797

While we find that, overall the investor reaction to a CEO's outside director appointment is slightly negative, our univariate and multivariate results do not reveal a significant association between the stock market reaction at the CEO's firm and CEO awards. Our univariate results show that the stock price reaction is slightly less negative for the 3-day and 5-day, but more positive for the 11-day event window. However, the differences are not statistically significant.

Table 2.8: Determinants of CEO's own firm CARs

This table presents univariate results for the 3-day, 5-day and 11-day cumulative abnormal return (CAR) around the appointments of CEOs as outside directors at the CEO's own firm. We report mean and median cumulative abnormal returns. The table compares CARs for CEOs who have won an award and those who have not. We report a t -test for means in column (3) and a Wilcoxon signed-rank test for medians in column (4).

	CAR[-1,1]			
	(1)	(2)	(3)	(4)
First Award	0.0012 (0.29)	0.0010 (0.23)	0.0012 (0.28)	0.0005 (0.12)
Retirement Age	0.0038 (0.68)	0.0048 (0.84)	0.0054 (0.96)	0.0058 (1.06)
Total Number Awards	0.0025 (1.08)	0.0034 (1.30)	0.0033 (1.32)	0.0034 (1.40)
Female		0.0029 (0.46)	0.0029 (0.45)	0.0023 (0.33)
Founder/CoFounder		-0.0109 (-1.00)	-0.0113 (-1.05)	-0.0127 (-1.18)
International Appointment		0.0130 (1.42)	0.0126 (1.33)	0.0148 (1.54)
Number of Board Seats			-0.0018 (-1.05)	-0.0022 (-1.26)
Ph.D./J.D./M.D.				0.0123* (1.92)
Ivy League				0.0044 (0.95)
LN(Assets) (Appointee)	0.0000 (0.01)	-0.0002 (-0.12)	-0.0002 (-0.09)	-0.0003 (-0.19)
Market-to-Book (Appointee)	-0.0006 (-0.94)	-0.0001 (-1.24)	-0.0009 (-1.34)	-0.0010 (-1.48)
R&D Expense (Appointee)	0.0020 (0.08)	0.0068 (0.26)	0.0077 (0.30)	0.0067 (0.28)
ROA (Appointee)	0.0610 (1.10)	0.0648 (1.27)	0.0688 (1.34)	0.0795 (1.53)
ROA _(t-1) (Appointee)	-0.0223 (-0.38)	-0.0268 (-0.49)	-0.0265 (-0.48)	-0.0317 (-0.58)
Intercept	-0.0150 (-0.87)	-0.0140 (-0.78)	-0.0111 (-0.62)	-0.0119 (-0.68)
Observations	216	216	216	216
R ²	0.025	0.039	0.043	0.072

Looking at our regression results, we find that the coefficients on *First Award* and *Retirement Age* are both positive but insignificant. Overall, we find little explanatory power in the director- and appointee firm-level control variables. We find some evidence that the reaction is less negative if the CEO has a Ph.D or equivalent. In a further but unreported specification we have also included appointing firm-level control variables but the results for our variables of interest remain unchanged.

2.6 Long-term performance around director appointments

In this section, we focus on three different questions. First, we evaluate whether pre-appointment performance plays a role for the director appointments in our sample.

And second, we look at how and whether firm performance changes after the director appointment. In other words, do firms benefit from appointing reputable executives? And finally, we are interested whether CEO's are rewarded with outside directorships for good performance at the firms they head.

We evaluate firm performance by looking at the 12-month, 24-month and 36-month event window. We first analyze pre- and post-appointment performance for all directors in our sample. We compute long-term performance for all appointments in our sample, CEO directors, award-winning directors and award-winning CEO directors. We then carry out the same analysis for the pre-appointment period for the subsample of CEOs. We calculate monthly calendar-time portfolio returns using the Fama-French five factor model (Fama and French, 2015). We present results for all director appointments in Table ?? and Table 2.10. The results on CEO director appointments are presented in Table 2.11

Our results show that the directors in our sample join the boards of firms that have performed well in the past. We find some evidence of abnormal monthly returns at the 12-month horizon. However, the alphas are only significant for our overall sample and the subset of award-winners. More importantly, however, we find evidence of significant and consistent outperformance at the 24- and 36-months horizon. The results imply that highly reputable directors have access to the boards of firm's that have performed well in the past. We observe alphas in the range of 0.53-0.82% for the 24-month and 0.58-0.68% at the 36-month horizon.

Table 2.9: Long-term firm performance before director appointments

This table reports results from Fama-French (FF) five factor regressions to detect abnormal returns around outside director appointments. This table specifically looks at the pre-appointment period. Panel A reports results for the 12-month, Panel B for the 24-month pre-appointment period. RMRF is the difference between monthly stock return portfolio and 91-day T-bill rate. SMB is the difference between the returns of small size firm portfolios and large size firm portfolios. HML is the difference between the returns of value firm portfolios and growth firm portfolios. RMW is the difference between the returns on diversified portfolios of stocks with robust and weak profitability and CMA is the difference between the returns on diversified portfolios of stocks of low and high investment firms which are referred to as conservative-aggressive. We use the weighted least square (WLS) technique in the value-weight portfolio analysis, in which the square root of the number of firms in each month is used as the weight in the regression model. The “Alpha” value reported in the regression model indicates the monthly average abnormal return of the sample. t – statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Factors					Model Characteristics			
	Alpha	RMRF	SMB	HML	RMW	CMA	Adj. R^2	F-stat	
Panel A : Event window -12-0 (months)									
All appointments (N=420)	0.0045** (1.95)	1.0158*** (24.04)	0.1311*** (4.61)	0.1488* (1.40)	-0.1359 (-0.57)	-0.1554* (-1.55)	0.7068	392.88***	
CEO appointments (N=244)	0.0037 (1.28)	0.9249*** (19.02)	0.1084*** (3.36)	-0.0733 (-0.54)	-0.2489*** (-3.31)	-0.0687 (-0.35)	0.6533	254.82***	
Award-winner appointments (N=236)	0.0046* (1.65)	1.1463*** (16.22)	0.0356 (0.37)	0.0452 (0.36)	-0.1296 (-1.02)	-0.0027 (-0.01)	0.6732	256.59***	
Award-winning CEO appointments (N=108)	0.0049* (1.43)	1.0161*** (11.65)	-0.0996 (-0.85)	-0.2297* (-1.49)	-0.3379** (-2.19)	0.2223 (1.01)	0.6104	145.54***	
Panel B : Event window -24-0 (months)									
All appointments (N=420)	0.0075*** (3.32)	1.0005*** (28.62)	0.2007*** (3.51)	0.2277*** (3.19)	-0.0823 (-0.80)	-0.1078** (-2.03)	0.8344	595.07***	
CEO appointments (N=244)	0.0082*** (3.55)	0.9570*** (23.13)	0.1692*** (2.56)	0.1134** (1.72)	-0.1570* (-1.49)	-0.1619** (-1.89)	0.7945	494.23***	
Award-winner appointments (N=236)	0.0058*** (2.63)	1.111*** (20.71)	0.02519 (0.32)	0.1392** (1.90)	-0.0408 (-0.41)	-0.0921 (-0.63)	0.8091	445.42***	
Award-winning CEO appointments (N=108)	0.0053*** (2.39)	1.0255*** (18.85)	-0.0700 (-0.88)	0.0184 (0.18)	-0.1365** (-1.89)	-0.1275 (-1.26)	0.7519	412.95***	
Panel C : Event window -36-0 (months)									
All appointments (N=420)	0.0066*** (3.01)	0.9873*** (36.25)	0.3315*** (5.34)	0.4572*** (4.64)	-0.0229 (-0.23)	-0.2610*** (-2.78)	0.8821	910.04***	
CEO appointments (N=244)	0.0067*** (2.94)	0.9627*** (29.00)	0.2767*** (4.48)	0.3695*** (3.60)	-0.0725 (-0.70)	-0.2816*** (-2.48)	0.84863	755.48***	
Award-winner appointments (N=236)	0.0068*** (3.38)	1.0690*** (26.88)	0.1550*** (2.76)	0.2376*** (2.59)	-0.1289 (-1.38)	-0.1061 (-1.13)	0.8243	634.92***	
Award-winning CEO appointments (N=108)	0.0058*** (2.92)	1.0356*** (21.45)	-0.0367 (-0.52)	0.0737 (0.81)	-0.1748*** (-2.92)	-0.1721* (-1.59)	0.81227	434.03***	

Table 2.10: Long-term firm performance after director appointments

This table reports results from Fama-French (FF) five factor regressions to detect abnormal returns around outside director appointments. This table specifically looks at the post-appointment period. Panel A reports results for the 12-month, Panel B for the 24-month and Panel C for the 36-month post-appointment period. RMRF is the difference between monthly stock return portfolio and 91-day T-bill rate. SMB is the difference between the returns of small size firm portfolios and large size firm portfolios. HML is the difference between the returns of value firm portfolios and growth firm portfolios. RMW is the difference between the returns on diversified portfolios of stocks with robust and weak profitability and CMA is the difference between the returns on diversified portfolios of stocks of low and high investment firms which are referred to as conservative-aggressive. We use the weighted least square (WLS) technique in the value-weight portfolio analysis, in which the square root of the number of firms in each month is used as the weight in the regression model. The “Alpha” value reported in the regression model indicates the monthly average abnormal return of the sample. t – statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Factors				Model Characteristics			
	Alpha	RMRF	SMB	HML	RMW	CMA	Adj. R^2	F-stat
Panel A : Event window 0-12 (months)								
All appointments (N=421)	0.0035 (1.30)	1.0291*** (25.73)	0.2549*** (2.59)	0.1974*** (4.28)	-0.1741* (-1.41)	-0.3241*** (-2.40)	0.6936	317.06***
CEO appointments (N=244)	0.0018 (0.52)	1.1040*** (23.53)	0.3536*** (2.89)	0.2217*** (3.13)	0.0138 (0.09)	-0.2368** (-1.91)	0.6873	294.23***
Award-winner appointments (N=237)	0.0044 (1.35)	0.9609*** (18.83)	0.0663 (0.57)	0.1592*** (3.06)	-0.3805*** (-2.59)	-0.3501* (-1.63)	0.6478	210.09***
Award-winning CEO appointments (N=108)	0.0010 (0.25)	1.1762*** (15.39)	0.2252** (1.86)	0.0973** (2.10)	0.0082 (0.04)	-0.0420 (-0.51)	0.6342	179.04***
Panel B : Event window 0-24 (months)								
All appointments (N=421)	0.0014 (0.62)	1.1303*** (31.85)	0.3264*** (4.04)	0.1619*** (4.76)	0.0779 (0.78)	-0.1204*** (-1.97)	0.8124	122.07***
CEO appointments (N=244)	0.0009 (0.35)	1.0988*** (28.78)	0.3013*** (3.28)	0.1159*** (3.64)	0.1406 (1.23)	-0.1060** (-1.71)	0.7755	86.20***
Award-winner appointments (N=237)	0.0025 (1.09)	1.0629*** (23.16)	0.1468* (1.83)	0.0921*** (2.89)	-0.1473* (-1.44)	-0.0042 (-0.03)	0.7835	106.35***
Award-winning CEO appointments (N=108)	0.0023 (0.90)	1.0707*** (19.92)	0.0132 (0.14)	0.1529*** (2.45)	-0.0213 (-0.18)	-0.1073 (-0.64)	0.6571	74.34***
Panel C : Event window 0-36 (months)								
All appointments (N=421)	0.0016 (0.80)	1.1369*** (23.59)	0.3484*** (4.88)	0.1349*** (6.48)	0.1976** (2.21)	-0.1568*** (-5.70)	0.8642	152.85***
CEO appointments (N=244)	0.0010 (0.46)	1.1169*** (20.62)	0.3311*** (4.12)	0.0354*** (5.35)	0.2636*** (2.62)	-0.1020*** (-4.40)	0.8186	112.37***
Award-winner appointments (N=237)	0.0018 (0.85)	1.0869*** (20.87)	0.2523*** (3.37)	0.1973*** (3.05)	0.0167 (0.17)	-0.1235*** (-3.31)	0.8214	121.52***
Award-winning CEO appointments (N=108)	0.0021 (0.96)	1.0542*** (19.80)	0.1737*** (2.66)	0.1302*** (2.39)	0.1146 (1.17)	-0.1458*** (-2.99)	0.7281	99.09***

Comparing pre-appointment to post-appointment performance reveals a striking difference. There is no evidence of outperformance across all post-appointment periods. This is particularly significant given the outperformance in the pre-appointment period leading up to the appointment. Moreover, the director is unlikely to join the board of a firm whose future prospect the director judges to be poor. We interpret our evidence to mean that the directors falsely interpret the firm's past performance as a signal for future performance and join the boards of firms that have performed extremely well in the past. Moreover, our results shed doubt on the notion that individual outside directors have a significant effect on firm outcomes.

Finally, Fama (1980) and Fama and Jensen (1983) suggest that CEOs are rewarded with outside board positions if the firms they head perform well. To address this question, we look at the long-term performance of the CEO's firm before he or she is appointed as outside director. We find significant outperformance at the CEO's own firm for all three pre-appointment windows. The monthly abnormal performance is between 0.68-1.70%. The documented abnormal returns are larger for CEOs who have not yet won the CEO award. This is in line with the conclusions of Malmendier and Tate (2009), who show that CEOs win an award after long and successful careers but following the award the CEO's firm tends to underperform. If CEO's have not yet won an award, their firms are more likely to be younger and at a high-growth stage. The firms of CEOs who have won an award, on the other hand, are more likely mature firms that enter a process of slowing and mean-reverting growth.

Table 2.11: Long-term firm performance around CEO's own firm before appointment

This table reports results from Fama-French (FF) five factor regressions to detect abnormal returns around outside director appointments. This table specifically looks at the pre-appointment period for a subsample of CEOs. Panel A reports results for the 12-month, Panel B for the 24-month and Panel C for the 36-month pre-appointment period. RMRF is the difference between monthly stock return portfolio and 91-day T-bill rate. SMB is the difference between the returns of small size firm portfolios and large size firm portfolios. HML is the difference between the returns of value firm portfolios and growth firm portfolios. RMW is the difference between the returns on diversified portfolios of stocks with robust and weak profitability and CMA is the difference between the returns on diversified portfolios of stocks of low and high investment firms which are referred to as conservative-aggressive. We use the weighted least square (WLS) technique in the value-weight portfolio analysis, in which the square root of the number of firms in each month is used as the weight in the regression model. The "Alpha" value reported in the regression model indicates the monthly average abnormal return of the sample. $t - statistics$ given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Factors			Model Characteristics			
	Alpha	RMRF	SMB	HML	RMW	CMA	Adj. R^2 F-stat
Panel A : Event window -12-0 (months)							
All appointments (N = 220)	0.0121*** (5.32)	0.9079*** (19.25)	0.0278 (0.34)	0.1609*** (2.43)	-0.0775 (-0.75)	-0.0985 (-1.33)	0.4549 71.45***
CEO award winner (N = 96)	0.0068** (2.23)	1.0251*** (16.16)	-0.0766 (-0.73)	0.07764 (0.56)	0.0088 (0.06)	0.0333 (0.48)	0.4062 44.64***
No CEO award winner (N = 124)	0.0170*** (5.42)	0.9507*** (13.91)	0.2132** (1.96)	0.2189*** (3.36)	-0.0582 (-0.43)	-0.1880 (-0.88)	0.3567 41.15***
Panel B : Event window -24-0 (month)							
All appointments (N = 220)	0.0101*** (5.01)	0.9131*** (28.03)	0.0519 (0.73)	0.1995*** (4.30)	-0.0380 (-0.41)	-0.1601** (-2.01)	0.5051 97.55***
CEO award winner (N = 96)	0.0085*** (3.57)	1.0238*** (21.41)	0.0194 (0.23)	0.0913* (1.67)	-0.0499 (-0.46)	-0.0617 (-1.24)	0.5172 84.13***
No CEO award winner (N = 124)	0.0131*** (5.29)	0.9099*** (18.18)	0.1009 (1.18)	0.2595*** (2.90)	0.1220 (1.11)	-0.3167*** (-2.84)	0.3967 57.41***
Panel B : Event window -36-0 (month)							
All appointments (N = 220)	0.0098*** (5.43)	0.9190*** (32.70)	0.0309 (0.49)	0.1203*** (3.47)	0.0618 (0.76)	-0.1113*** (-3.89)	0.5409 118.82***
CEO award winner (N = 96)	0.0093*** (4.53)	0.9461*** (24.93)	0.0430 (0.58)	0.0746** (1.85)	0.1094 (1.16)	-0.0753** (-1.91)	0.5348 93.88***
No CEO award winner (N = 124)	0.0114*** (5.09)	0.9257*** (23.85)	0.0519 (0.67)	0.1982*** (3.19)	0.1567* (1.58)	-0.2376*** (-3.25)	0.4541 79.01***

2.7 Conclusion

Unlike most economic systems, financial incentives are not the primary incentive device in the market for outside directors. Instead, director reputation has been recognized as an essential commodity that governs director selection and determines, at least to some extent, the effectiveness of individual directors and the board as a whole.

We study the role of director reputation using a short- and long-term event study. We collect outside director appointments for the CEO award winners across different stages of their career. Exploiting an exogenous shift in reputation, induced by prestigious CEO awards, we show that investors recognize and value the reputation of appointed outside directors. We confirm the robustness of the documented effect for a subsample of CEO director appointments. Given the large average firm size in our sample the appointment of a CEO award winner translates into an economically meaningful short-term value effect.

Given the high quality of the directors in our sample (all the directors end up winning a CEO award), we would expect that firms benefit from the appointment of such a high profile director in the long-run. This intuition, however, is not supported by the findings. Comparing long-term stock performance for the three year pre- and post-appointment period reveals a stark contrast. We find significant out-performance before the appointment on the one hand and little or no signs of out-performance in the period after the appointment. Given the high demand for their services, reputable directors join the boards of firms that have performed well for an extended period of time. However, the post-appointment results suggest that the appointment of a reputable outside director does not necessarily create value in the long-run. The findings call into question the general consent that outside directors have a role apart from monitoring.

Chapter 3

Director reputation and firm outcomes: The case of award-winning CEOs

3.1 Introduction

CEOs continue to be highly demanded as outside directors and CEO-level experience is still considered one of the most important qualities when appointing a new director. However, despite their experience and ability, it is unclear why firms hire CEOs and whether they are valuable as directors (Fich, 2005; Fahlenbrach et al., 2010). A study by Fich and Shivdasani (2006) suggests that busy directors are unable to properly monitor management and consequently firm performances suffers. Yet, the most skilled directors are often also those that are most time constrained. More recent research indicates that whether or not a board is busy might not ultimately determine its effectiveness (Field et al., 2013). Instead, the effectiveness of outside directors is determined to a large extent by incentives.

Since financial incentives are not strong (Yermack, 2004; Adams and Ferreira, 2008), preserving and enhancing reputation is considered the primary concern of outside directors (Fama, 1980; Fama and Jensen, 1983). A good reputation is important in the appointment process (Kaplan and Reishus, 1990) and also determines the effort and time a director allocates towards a directorship (Masulis and Mobbs, 2014, 2016).

Instead of measuring reputation, we use prestigious CEO awards conferred by editorials of major national publications (Malmendier and Tate, 2009; Shemesh, 2014) to identify a small number of highly reputable CEOs. Given their managerial experience, CEO position and proven track record, CEO award winners are among the most reputable executives available in the director labour market (Malmendier and Tate, 2009; Ammann et al., 2016). Most importantly, however, CEOs have no financial incentives to accept board positions. Instead, notable board positions add to the profile of the CEO and can be viewed as a strictly reputation enhancing activity.

We use prestigious CEO awards conferred by editorials of major national publications (Malmendier and Tate, 2009; Shemesh, 2014) as an exogenous shift in status and reputation to identify a small number of highly reputable CEOs. Given their managerial experience, CEO position and proven track record, CEO award winners are among the most reputable executives available in the director labour market. Most importantly, however, CEOs have no financial incentives to accept board positions. Instead, notable board positions add to the profile of the CEO and can be viewed as a strictly reputation enhancing activity.

The aim of this study is to understand whether a system where reputation serves as currency and incentive, i.e. the most reputable directors will be matched with the most prestigious board seats, can be in the interest of shareholders and can result in effective monitoring. It is not clear whether shareholders should take a critical stance towards a system relying on reputation-based matching between firm and director or whether this system represents an efficient way to match the director's human capital to the boards where it can be applied most effectively.

We expect a positive association between award-winning CEOs as outside directors on the board of directors and firm performance for several reasons. We argue that the expected positive association is due to two different influences. First, selection dynamics and second the intrinsic value CEO award winners add to the

board.

The so-called “superstar status” of CEO award winners (Malmendier and Tate, 2009), will result in a selection and matching process where CEO award winners are matched to the most prestigious boards. They will carefully evaluate the risk-return trade-off and will only accept appointments that offer the greatest reward and least risk in terms of reputation and future career prospects.

Once appointed, CEO award winners are in a unique position to contribute value through their board functions. They possess a high level of managerial experience, have access to large social and business networks and can leverage their reputation and media presence to exert influence on the board.

Secondly, we also expect that the presence of outside directors who are CEO award winners is positively associated with the quality of corporate governance. Reputation becomes more valuable as it is built up (Diamond, 1989). Because the CEO award marks a relative peak in terms of reputation and status, the potential costs resulting from poor monitoring are high. From the perspective of outside directors, corporate governance can be viewed as an insurance mechanism to limit reputational damage.

Moreover, implementing governance provisions that restrict management and are in the interest of shareholders, can serve as a signal of director prowess and increase their ability to obtain directorships in the future.

To test our expectations we identify the outside board positions of award-winning CEOs using the *RiskMetrics* director database. Our sample includes a large cross-section of Standard and Poor’s (S&P) 1500 firms from 1996-2013. We use three measures to evaluate the effect of award-winning CEOs. We count the total number of CEO award winners, an indicator variable equal to 1 if a firm has at least one CEO award winner and the fraction of CEO award winners serving as outside directors and evaluate the consequences for firm performance and corporate governance.

We find that in addition to their CEO responsibilities, award-winning CEOs

occupy important board functions. While representing a small fraction of directors in the sample, they hold significantly more outside board positions than the average director (2.00 vs. 0.96), are represented on more committees (1.75 vs. 1.63) but at the same time are almost three times more likely to have missed 75% of the board meetings (0.05 vs. 0.02). Our findings highlight some of the problems resulting from the reputation-based matching of directors. CEO award winners are given a relatively larger share of the board responsibilities despite having considerably less time to allocate to their board functions.

In line with our predictions we find evidence of a value premium attached to firms with award-winning CEOs as outside directors. Keeping debt constant, the increase in Tobin's Q associated with a one standard deviation increase in the number of award-winning CEOs is equivalent to an increase in firm value of \$468 million for a firm with average total assets. Moreover, we find that the effect can only be observed using valuation based measures such as Tobin's Q. There is no evidence that the presence of award-winning CEOs on the board is in any way related to a firm's operating performance (ROA). The results match our expectations and can be consolidated with the findings of Fahlenbrach et al. (2010) who find that appointing CEO directors has no observable effect on operating performance. Moreover, given outside directors' limited access to firm- and project-specific information, they have little scope to influence the day-to-day management of the firm or its assets (Demb and Neubauer, 1992; Adams et al., 2010; Schwartz-Ziv and Weisbach, 2013). Instead, outside directors' contribution to firm value is likely to be through the channel of value-added growth or higher return on assets required in the future (Kang et al., 2016).

We use the Entrenchment index of Bebchuk et al. (2009) to measure the quality of a firm's governance provisions. Firms with award-winning CEOs have significantly lower entrenchment, i.e. better governance. Our results hold when we control for within-firm variation in individual governance provisions, suggesting that award-

winning CEOs are directly involved in promoting better governance and abolishing governance provisions that hurt shareholders. In particular, we find a reduced likelihood of staggered boards, limits to amend by-laws and supermajority requirements for mergers and acquisitions.

In order to establish the robustness of our results we explore several alternative narratives that could explain our results. We show that the documented value premium is not determined by past values of our dependent variable, differences in the quality of governance, director clustering around firms whose CEOs are also CEO award winners, alternative variable specifications or additional control variables. Using market-to-book as an alternative measure of firm value and return on sales (ROS) as an alternative measure of operational efficiency leaves our results and conclusions unchanged. Finally, we show that the value premium associated with CEO award winners disappears once they are retired. We conclude that the value premium stems, at least partially, from the CEO's position and the certification benefit it provides for the appointing firm.

We include firm-fixed effects in all regressions to control for any firm-level omitted variables that are time invariant and year-effects control for any changes in the macro environment. Moreover, we present a range of tests to ensure the robustness of our tests to omitted variables, nonlinear dependencies, sample construction and outliers. To further ensure the robustness of our results we present two additional tests. Because firms with award-winning CEOs differ significantly from the average firm on our sample linear controls may not adequately account for the differences. Unaccounted nonlinear firm characteristics could cause the association with firm value and corporate governance. Tests using a propensity score matched sample confirm our results. Finally, we use an alternative definition of our variable of interest and count the number of CEO awards held by all outside directors (instead of the number of award winners). The results confirm our previous findings. Further, they suggest that the number of awards is a less important indicator of reputation

than the number of individual CEO award winners on the board. This indicates that the reputational benefit derived from winning additional CEO awards is diminishing.

Our findings make several important contributions to the literature. First and foremost, this paper shows that the incentive structure of the director labour market can lead to positive firm outcomes for firms that succeed in recruiting highly reputable directors, such as award-winning CEOs. While they may not seem like good monitors at first sight, strong incentives and self-interest make them valuable directors from the shareholders point of view. Our findings add to the recent literature showing that reputation incentives can lead to better monitoring (Jiang et al., 2015), can reduce the likelihood of negative firm outcomes (Masulis and Mobbs, 2016), increase the time directors commit towards a directorship and finally result in positive firm outcomes (Masulis and Mobbs, 2014).

Second, our paper adds to the literature on busy directors and busy boards (Ferris et al., 2003; Fich and Shivdasani, 2006; Field et al., 2013). Our findings suggest that incentives and not time-constraints ultimately determine director or board effectiveness. Field et al. (2013) show that for a sample of IPO firms, busy boards are not necessarily detrimental. We argue that IPO firms offer outside directors financial as well as reputation incentives. The ownership stake of outside directors is 33% in the sample of Field et al. (2013), suggesting the potential for considerable financial rewards. The positive results of Field et al. (2013) could thus be explained by a mixture of financial and reputational incentives that lead directors to be effective monitors and valuable board members. Overall, we interpret our findings to mean that incentives are central to a board's effectiveness.

Third, the study contributes to the understanding of the role of outside directors. The results of Kang et al. (2016) suggest, the role of outside directors may be better evaluated using a measure of value-added growth rather than operational profitability. Especially in large firms, outside directors have very limited access to firm- or project-specific information (Dominguez-Martinez et al., 2008; Adams et al.,

2010; Cornelli et al., 2013). Their ability to influence the management of assets in place is thus very limited.

The remainder of the paper is organized as follows. In Section 2, we present our empirical predictions. Section 3 discusses the data and methodology. In Section 4 and Section 5 we present our main results and in Section 6 we consider the robustness of our results. The conclusion is presented in Section 7.

3.2 Theoretical considerations and hypotheses development

In this section we review the relevant literature and develop hypotheses whether and how award-winning CEOs as outside directors can impact firm outcomes. It is unclear whether firm's can benefit from CEO directors (Fich, 2005; Fahlenbrach et al., 2010). In an early account, Fich (2005) finds positive announcement returns upon appointing another firm's CEO. Fahlenbrach et al. (2010), in turn, show that the positive stock price reaction is limited to the appointment of the first CEO to the board. Most importantly, the authors show that the presence of CEO directors does not affect a firm's operating performance. They provide no conclusive answer to the question why CEOs continue to be highly demanded as outside directors.

One potential explanation is that CEOs are too busy to act as effective monitors. Core et al. (1999), for example, show that CEOs of firms with busy directors receive excessive pay, suggesting that busy boards are not effective. Similarly, Fich and Shivdasani (2006) suggest that busy directors are unable to fulfill their monitoring duties which will subsequently result in poor firm performance. More recently, Field et al. (2013) show that for a sample of IPO firms a busy board is not necessarily detrimental. Instead the number of directorships held by outside directors can be seen as a function of their skill and experience (Fama and Jensen, 1983). Hence, whether or not a board is busy might not ultimately determine its effectiveness. Instead, recent research suggests that director effectiveness is to a large extent

determined by incentives.

Because financial considerations are secondary (Yermack, 2004; Adams and Ferreira, 2008), reputation serves as the primary motivator for outside directors and having a reputation as a good monitor increases the likelihood of additional future board appointments (Fama, 1980; Fama and Jensen, 1983). Recent empirical research indicates that reputational damage can severely affect a directors' future career (Fich and Shivdasani, 2007; Brochet and Srinivasan, 2014; Ertimur et al., 2012; Fos and Tsoutsoura, 2014).

For example, Fich and Shivdasani (2007) show that following lawsuits, directors experience a significant decline in the number of their outside board positions. This decline in the number of board positions is more pronounced if the allegations are more severe or the director bears greater responsibility. Moreover, directors with boards seats at firms facing fraud allegations are more likely to lose their board positions at firms with stronger governance. More recently, Fos and Tsoutsoura (2014) show that proxy contests, as a result of poor director performance, can be equally damaging to a director's future career prospects. Following proxy contests, directors experience a significant decline in the number of board seats at the firm targeted with the proxy fight, but also at other non-targeted firms. Reductions in cash dividends (Kaplan and Reishus, 1990), financial and disclosure-related fraud (Brochet and Srinivasan, 2014) and excessive executive pay (Ertimur et al., 2012) have been shown to be similarly damaging to a directors' career.

While negative firm outcomes can be damaging to a director's career, reputation incentives can also lead directors to be effective monitors and lead to positive firm outcomes (Masulis and Mobbs, 2016, 2014; Jiang et al., 2015). Masulis and Mobbs (2014), for example, show that reputation incentives can significantly affect the likelihood of an outside directors' board meeting attendance and involvement in committees as well as increase the likelihood that these directors remain on the board in times of bad firm performance. Masulis and Mobbs (2016) find evidence

suggesting that directors prioritize their efforts according to the relative prestige derived from each directorship. In particular, the authors note fewer actions known to hurt director reputation at directorships ranked more highly by outside directors. The evidence suggests, that reputation incentives can greatly affect how directors allocate time and resources towards their board functions.

We identify a small group of highly reputable executives using prestigious CEO awards and evaluate their roles as outside directors. Given their proven track record, managerial experience and CEO award, these CEOs are among the most reputable executives in the director labour market. Most importantly, however, CEOs have no financial incentives to accept board positions. Instead, accepting board positions can be viewed as a reputation enhancing exercise. We evaluate the consequences of reputation incentives for this small group of highly reputable and time-constrained CEOs.

If properly incentivized, CEO award winners are in a unique position to fulfill those responsibilities. As CEOs they are central to a firm's success, as part of a board they can better understand structural challenges and strategic issues. As such, CEO experience can be a valuable resource and help boards fulfill their advising and monitoring duties. Given the high demand for their services, CEO award winners will be able to carefully choose what boards to sit on. They will only accept board seats at firms that offer the least risk and greatest reward in terms of reputation. Moreover, the firm will derive a certification benefit from appointing the CEO (Fahlenbrach et al., 2010). The appointment will serve as a vote of confidence for the firm, its management and its future prospects. Moreover, as well-known CEOs, they are likely to have more influence than the average outside director to influence other board members and corporate strategy. They can actively lobby for changes in the management team or against policies and strategies they consider value-destroying. In times of conflict, for example they can, if necessary, openly oppose management and actively leverage their reputation and media presence to support their agenda.

Hence, our first hypothesis is:

H1: *Award-winning CEO outside directors are matched to firms that experience better firm performance than firms with no award-winning CEO as outside directors.*

CEO awards mark the relative peak of a CEO's career in terms of status and reputation. Among other things, such as engaging in a range of "celebrity" activities, the CEO's outside board responsibilities increase considerably following the award (Malmendier and Tate, 2009). In a theoretical model, Diamond (1989) shows that agents have stronger incentives to maintain their reputation as it becomes more valuable. The model also predicts that a single failure can cause a strong decline in its value.

Following this rationale, CEO award winners have particularly strong incentives to protect their reputation. From the perspective of outside directors, corporate governance can be viewed as an insurance mechanism to limit reputational damage. Improving corporate governance will reduce the likelihood of managerial malfeasance and limit the liability of the board. Moreover, implementing governance provisions that restrict management are in the interest of shareholders and can serve as a signal of director prowess. It is thus in the interest of the CEO award winner to promote sound corporate governance. Our second hypothesis:

H2: *Award-winning CEO outside directors are matched to firms that have stronger governance provisions than firms with no award-winning CEOs as outside directors.*

3.3 Data, descriptive statistics and univariate results

3.3.1 Data

We test our hypotheses using a large cross-section of S&P 1500 firms for the time period 1996 to 2013. The governance data used in this study are from *RiskMetrics*, accounting data are from *Compustat*, compensation data are from *Execucomp*, stock return data from *CRSP*, and institutional ownership data from *Thomson Reuters Institutional (13f) Holdings*. We exclude firms incorporated outside the U.S. To merge the RiskMetrics database with Compustat and CRSP we use the procedure outlined in Coles et al. (2014). Because we use lagged variables throughout our analysis we adjust dollar values to constant 2005 dollars.

We use a hand-collected list of CEO Awards (Malmendier and Tate, 2009; Shemesh, 2014). The awards are from different sources: *Business Week*, *Financial World*, *Forbes*, *Chief Executive*, *Morningstar.com*, *Electronic Business Magazine*, *Industry Week* and the *Harvard Business Review*. In total, our sample includes 839 CEO Awards between 1975-2013. After accounting for those CEOs who have received multiple awards, we identify 582 individual award-winning CEOs. Of those, 429 appear as directors in the *RiskMetrics* database. More details on the construction of the sample, the CEO Awards used in this study and the matching procedure are provided in Appendix E.

3.3.2 Director-level

In total, there are 263,053 director-firm-year observations in the *RiskMetrics* database. Out of those, 183,932 are outside director-firm-year observations. The results are reported in Table 3.1. The average (median) director age is 61.5 (62) years. 13.6% of the directors are female and 10.6% hold a CEO position. Half a percent of all directors are outside directors who are CEOs and have won an award. Every director has, on average, one other outside board position. Less than 2% of all outside

Table 3.1: Director-level descriptive statistics and univariate results

The table below reports descriptive statistics for various director-firm-level variables for all outside directors in the *RiskMetrics* database from 1996-2013 in Panel A and results of a univariate analysis in Panel B. In Panel B, column (1) and (2) report the averages for the two groups. Column (3) reports the difference between the two groups and column (4) reports the p-value for a test that Column (1) is equal to Column (2).

			Outside Directors		
			Observations	Mean	Median
			(1)	(2)	(3)
Panel A					
Director age			183,712	61.479	62.000
Director tenure			165,308	7.619	6.000
Female director			174,938	0.136	0.000
CEO director			183,931	0.106	0.000
AwCeo outside director			183,932	0.005	0.000
Outside directorships			165,341	0.967	1.000
Attended <75% of Meetings			183,931	0.018	0.000
Owns less than 1%			145,788	0.882	1.000
Audit committee member			165,415	0.504	1.000
Compensation committee member			165,415	0.489	0.000
Governance committee member			165,405	0.382	0.000
Nominating committee member			165,415	0.435	0.000
Number of committee memberships			183,932	1.627	1.000
Award-winning					
CEO					
	Outside	Other		p-value for	p-value for
	Directors	Directors	Difference	test (1)=(2)	Wilcoxon
Panel B	(1)	(2)	(3)	(4)	rank-sum test
Outside directorships	2.000	0.961	1.039	0.000	0.000
Attended <75% of meetings	0.048	0.017	0.031	0.000	0.000
Audit committee member	0.350	0.504	0.155	0.000	0.000
Compensation committee member	0.545	0.488	0.056	0.000	0.000
Governance committee member	0.400	0.382	0.018	0.260	0.260
Nominating committee member	0.435	0.453	0.018	0.249	0.249
Number of committee memberships	1.747	1.626	0.121	0.001	0.000

directors missed more than 25% of their firm’s board meetings and approximately 88% have less than one percent of the voting power. About half (50.4%) of the directors are a member of the audit committee, 48.9% are part of the compensation committee, 38.3% a member of the governance committee and 43.5% are part of the nominating committee. The mean (median) number of committee memberships is 1.63 (1).

Univariate comparisons in Panel B of Table 3.1 show that award-winning CEO outside directors hold, on average, more outside board positions than the average outside director. They are also more than twice as likely to miss more than 25% of board meetings but have significantly more board committee responsibilities. Overall, the findings suggest that award-winning CEOs are highly desired as outside directors, are more likely to be part of a board committee but, given their responsibilities as CEO, are less likely to attend board meetings. This emphasizes the problem that the most desired or suitable board members are also those with the least time to allocate towards board responsibilities.

3.3.3 Firm-level

Our firm-level sample has 23,907 firm-year observations and 2,584 firms. An overview of the data is presented in Table 3.2. The average firm controls \$16.726 billion in total assets, has a market capitalization of \$8.093 billion and sales of \$6.004 billion. On average every board has 9 directors. In approximately 90% of firms, outside directors represent a majority of the board. The average Tobin’s Q is 1.87 and an entrenchment index of 2.20. In terms of our variables of interest, there are 739 firm-year observations and 242 firms with at least one award-winning CEO outside director. On average, every board has 0.035 award-winning CEO outside directors and the maximum number in any given firm-year observation is 3. Looking at the 1st and 99th percentile, reveals that the top 1% of firms have 1 award-winning CEO outside director, representing a fraction of 11% of outside directors. Moreover, it

Table 3.2: Firm-level descriptive statistics

The table below provides descriptive statistics for all variables used in the main results. The sample consists of all firms on the *RiskMetrics* database for the years 1996-2013. Dollar values are in millions of 2005 dollars.

	Observations (1)	Mean (2)	Std. (3)	Median (4)	p1 (5)	p10 (6)	p90 (7)	p99 (8)
<u>Panel A: Award-winning CEO outside director variables</u>								
AwCeo outside director (Number)	23,907	0.035	0.206	0.000	0.000	0.000	0.000	1.000
AwCeo outside director (Dummy)	23,907	0.031	0.173	0.000	0.000	0.000	0.000	1.000
AwCeo outside director (Fraction)	23,907	0.003	0.020	0.000	0.000	0.000	0.000	0.111
<u>Panel B: Performance and governance measures</u>								
Tobin's Q	23,885	1.869	1.584	1.424	0.702	0.951	3.193	7.610
ROA	23,884	0.148	0.126	0.137	-0.111	0.016	0.289	0.537
Entrenchment index	20,579	2.200	1.299	2.000	0.000	0.000	4.000	5.000
<u>Panel C: Control variables</u>								
Assets (\$M)	23,890	16,726	96,294	2,072	98	306	24,232	257,014
Sales (\$M)	23,890	6,004	18,959	1,369	0	219.0	12,663	81,069
Board size	23,907	9.434	2.690	9.000	5.000	6.000	13.000	17.000
Fraction outside directors	23,907	0.712	0.164	0.750	0.222	0.500	0.889	0.923
R&D expense	23,884	0.029	0.064	0.000	0.000	0.000	0.101	0.269
Capital expenditures	23,884	0.057	0.070	0.037	0.000	0.001	0.127	0.3331
Leverage	23,290	0.431	0.782	0.189	0.000	0.038	1.141	3.307
Risk	23,885	0.352	0.588	0.344	0.000	0.000	0.686	1.032
Segments	23,862	0.414	0.213	0.364	0.141	0.205	0.685	1.165
CEO ownership	23,907	2.337	1.935	2.000	0.000	0.000	5.000	8.000
	23,907	0.010	0.044	0.000	0.000	0.000	0.022	0.195

Table 3.3: Firm-level univariate results

The table below provides results of a univariate analysis of firm characteristics. The variable of interest is Tobin's Q. First, we sort firms into two groups based on whether they have award-winning CEO outside directors. Column (1) and (2) report the averages for the two groups. Column (3) reports the difference between the two groups and column (4) reports the p-value for a test that Column (1) is equal to Column (2). Dollar values are in 2005 dollars.

	Award-winning CEO Outside Director (N=739) (1)	No Award-winning CEO Outside Director (N= 23,146) (2)	Difference (3)	p-value for test (1)=(2) (4)	p-value for Wilcoxon rank-sum test (5)
<u>Panel A: Performance and governance measures</u>					
Tobin's Q	2.130	1.824	0.306	0.000	0.000
ROA	0.156	0.147	0.008	0.042	0.009
Entrenchment index	1.912	2.205	-0.292	0.000	0.000
<u>Panel B: Control variables</u>					
Assets (\$M)	69,973	15,026	54,946	0.000	0.000
Sales (\$M)	19,647	4,861	14,785	0.000	0.000
Board size	11.393	9.350	2.043	0.000	0.000
Fraction outside directors	0.762	0.710	0.051	0.000	0.000
R&D expense	0.032	0.027	0.005	0.010	0.000
Capital expenditures	0.058	0.056	0.002	0.368	0.000
Capital intensity	0.443	0.417	0.025	0.281	0.000
Leverage	0.346	0.393	0.046	0.000	0.000
Risk	0.392	0.415	0.023	0.004	0.002
Segments	2.639	2.320	0.318	0.000	0.035
CEO ownership	0.003	0.009	0.006	0.000	0.000

shows that the firms in the 99th percentile are more than 10 times larger than the firms in the 90th percentile. Details of all variable definitions used in this study are provided in Appendix B.

Univariate results, comparing firms with award-winning CEOs as outside directors and all other firms are presented in Table 3.3. We find that award-winning CEOs sit on the boards of very large firms with substantially higher total sales (\$19.6 billion versus \$4,86 billion). The firms differ significantly from the average firm on key variables. They invest more in R&D activity, operate with higher leverage, have more business segments and less institutional ownership. In terms of board structure, we find that CEO award winners sit on firms with bigger boards (11.4 vs. 9.4 directors), with a larger fraction of outside directors (0.76 vs. 0.71) and more outside board responsibilities (15.8 vs. 6.9). Finally, we find that CEO ownership is also considerably lower among these firms (0.003 vs. 0.009).

Looking at our variables of interest, we find that firms with award-winning CEOs as outside directors have significantly higher Tobin's Q and ROA and a lower entrenchment index (i.e. better governance).

3.4 Firm performance

In this section, we test our first hypothesis in a multivariate model.

3.4.1 Specification

We begin by formally investigating if the outside board positions of CEO award winners are associated with firm value by estimating the following regression:

$$Y_{it} = \alpha_0 + \alpha_i + \alpha_t + \beta_1 AwCEO_{it} + \beta_2 X'_{it} + \mu_{it}, \quad (3.1)$$

Y_{it} is a measure of firm i 's performance in year t . We use two performance measures: *Tobin's Q* as a proxy for valuation and *ROA* as a measure of the profitability of assets in place. *Tobin's Q* is calculated as the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. *ROA* is calculated as operating income before depreciation over lagged assets¹. Our variable of interest is $AwCEO_i$. This variable takes three forms. First, the number of award-winning CEOs who serve on the board as outside directors (Number), then an indicator variable equal to one if a firm has at least one award-winning CEO serving as outside director on its board (Dummy) and finally, the fraction of directors who are award-winning CEOs and serve as outside directors of the firm (Fraction). All regressions control for firm- and year fixed effects, α_i and α_t . Time-varying control variables (X_{it}) include board characteristics, firm characteristics, organizational complexity and CEO characteristics, and other firm characteristics prior studies show are related to firm performance and governance mechanisms.

Board characteristics include the natural log of the total number of directors on the board ($LN(Board\ size)$) and the level of board independence measured as the fraction of outside directors on the board ($Fraction\ outside\ directors$). Board size, in particular, has been shown to be negatively associated with firm value (Yermack, 1996; Eisenberg et al., 1998).

¹The construction of our performance measures is motivated by Gorodnichenko and Weber (2016).

To control for firm characteristics, we include a measure of research intensity (*R&D expense*), investment (*Capital expenditures*), and capital structure (*Capital intensity* and *Leverage*). Proxies for organisational complexity include the natural logarithm of sales (*Firm size*) and the number of business segments² (*Segments*). Prior studies such as Linck et al. (2008) and Boone et al. (2007), for example, show that measures of firm complexity are related to board composition and its effectiveness. Finally, we control for CEO characteristics in the form of the percentage of common shares outstanding owned by the CEO (*CEO ownership*).

3.4.2 Results

The results of our baseline regressions are reported in Table 3.4 and Table 3.5. The results show that CEO award winners serving as outside directors on a firm's board are significantly positively related to firm valuation. The coefficients are consistently positive and highly significant across different variations of our variable of interest. In terms of economic significance, the results indicate a substantial valuation effect. Increasing the number of CEO award winners by one standard deviation is associated with a 0.028 (0.134 x 0.206) higher Tobin's Q. Assuming the firm's debt remains constant, for a firm with average total assets the increase in Tobin's Q is equivalent to an increase in firm value of \$468 million (\$16,726 x 0.028). The coefficient on the indicator variable in column (2) is slightly larger than the coefficient on the number of award-winning CEOs in column (1) (0.146 vs 0.134). We interpret that to mean that firms disproportionately benefit from appointing the first CEO award winner to their board. As the number of award-winning CEOs increases, the benefits from an additional appointment decreases.

At the same time, however, we find no evidence that the appointment of high-profile outside directors can help firms to improve the profitability of their assets in

²Compustat contains information on four segment types: BUSSEG (Business Segment), GEOSEG (Geographic Segment), OPSEG (Operating Segment - mixed business and geographic) and STSEG (State Segment). We use business segments (BUSSEG) to identify if firms have, for example, similar operations in different industries or different operations within the same industry.

Table 3.4: Award-winning CEO outside directors and Tobin's Q

The table below reports regression results where the dependent variable is Tobin's Q. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. We use the number in column (1), an indicator variable equal to one if the firm has at least one *AwCEO outside director* in column (2) and the fraction of *AwCEO outside director* with respect to the total board size in column (3). All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* - statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Tobin's Q		
	(1)	(2)	(3)
AwCeo outside director (Number)	0.134*** (3.04)		
AwCeo outside director (Dummy)		0.146*** (2.85)	
AwCeo outside director (Fraction)			1.319*** (2.76)
LN(Board size)	-0.062 (-1.16)	-0.061 (-1.14)	-0.057 (-1.06)
Fraction outside directors	0.024 (0.36)	0.025 (0.37)	0.025 (0.37)
R&D expense	4.569*** (6.82)	4.562*** (6.81)	4.568*** (6.82)
Capital expenditures	0.253 (1.02)	0.255 (1.03)	0.253 (1.02)
Capital intensity	-0.181*** (-5.70)	-0.180*** (-5.68)	-0.181*** (-5.70)
Leverage	-0.504*** (-7.56)	-0.504*** (-7.56)	-0.504*** (-7.56)
LN(Sales)	-0.394*** (-12.96)	-0.394*** (-12.95)	-0.394*** (-12.97)
Risk	0.322*** (5.72)	0.321*** (5.71)	0.322*** (5.72)
ROA	4.369*** (24.65)	4.371*** (24.63)	4.370*** (24.65)
ROA _{t-1}	0.446*** (3.99)	0.445*** (3.98)	0.445*** (3.99)
ROA _{t-2}	0.511*** (4.91)	0.511*** (4.91)	0.512*** (4.92)
Segments	-0.016** (-2.52)	-0.016** (-2.52)	-0.016** (-2.53)
CEO ownership	-0.617 (-1.33)	-0.612 (-1.32)	-0.612 (-1.32)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23128	23128	23128
R ²	0.339	0.339	0.339

place (ROA). All three variations of our variable of interest are consistently insignificant.

In sum, our results are consistent with our first hypothesis (H1). We find that firms with award-winning CEOs on the board have better future growth opportunities. At the same time, however, we do not find any evidence that these firms perform better operationally. We interpret our results as an indication that award-winning CEOs are recruited to boards to help firms realize their growth potential but fail to have an active input in day-to-day operations. Our results are consistent with Kang et al. (2016) who find that the industry experience of CEO directors does not help improve a firm's profitability, but is valuable in enhancing value-added growth. Moreover, our findings can also be reconciled with those of Fahlenbrach et al. (2010). The authors show that appointing CEO directors does not have an affect on ROA³.

3.5 Corporate governance

In this section, we test our second hypothesis. Legal and reputational risks faced by outside directors are substantial and can directly affect their future ability to attain future board positions. Implementing and lobbying for sound corporate governance is thus in the interest of outside directors, and particularly, directors with a lot to lose in terms of reputation and status. Given their status, award-winning CEOs have the authority to support and implement new governance mechanisms.

3.5.1 Specification

We begin formally investigating whether and how the outside board positions of CEO award winners are associated with firm value by estimating the following regression:

$$Q_{it} = \alpha_0 + \alpha_i + \alpha_t + \beta_1 AwCEO_{it} + \beta_2 X'_{it} + \mu_{it}, \quad (3.2)$$

³Similar to Fahlenbrach et al. (2010), we find no effect of CEO directors on Tobin's Q or ROA. For consistency, we use the total number of CEO directors, an indicator variable equal to one if the firm has at least one CEO director, and the fraction of CEO directors to the total number of directors. We conclude that CEO directors have no effect on firm valuation or the profitability of assets in place. The results are reported in Appendix B.

Table 3.5: Award-winning CEO outside directors and ROA

The table below reports regression results where the dependent variable is ROA. *ROA* is defined as operating income before depreciation and taxes. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. We use the number of award-winning CEO outside directors in column (1), an indicator variable equal to one if the firm has at least one award-winning CEO outside director in column (2) and the fraction of award winners to total board size in column (3). All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	ROA		
	(1)	(2)	(3)
AwCEO outside directors (Number)	-0.002 (-0.60)		
AwCEO outside directors (Dummy)		-0.004 (-1.09)	
AwCEO outside directors (Fraction)			-0.024 (-0.55)
LN(Board size)	-0.033*** (-5.84)	-0.033*** (-5.83)	-0.033*** (-5.86)
Fraction outside directors	-0.010 (-1.39)	-0.010 (-1.38)	-0.010 (-1.39)
R&D expense	0.661*** (10.06)	0.662*** (10.06)	0.661*** (10.06)
Capital expenditures	0.605*** (23.13)	0.605*** (23.13)	0.605*** (23.13)
Capital intensity	-0.037*** (-7.25)	-0.037*** (-7.24)	-0.037*** (-7.25)
Leverage	-0.060*** (-8.86)	-0.060*** (-8.87)	-0.060*** (-8.87)
LN(Sales)	0.036*** (10.57)	0.036*** (10.56)	0.036*** (10.58)
Risk	-0.057*** (-9.37)	-0.057*** (-9.37)	-0.057*** (-9.37)
Segments	-0.002*** (-3.48)	-0.002*** (-3.48)	-0.002*** (-3.48)
CEO ownership	-0.069 (-1.49)	-0.069 (-1.49)	-0.069 (-1.49)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23239	23239	23239
R^2	0.281	0.281	0.281

Q_{it} is a measure of firm i 's governance in year t . Governance is measured using the entrenchment index of Bebchuk et al. (2009). Bebchuk et al. (2009) show that a governance index based on the six governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments is better able to explain the negative association between weak governance and firm value than the originally proposed governance index of Gompers et al. (2003). The original index of Gompers et al. (2003) included all twenty-four governance provisions covered by the Investor Responsibility Research Center (IRRC). Bebchuk et al. (2009) show that the remaining 18 governance provisions, not included in the entrenchment index, are not associated with a reduction in firm value or negative abnormal returns. The entrenchment index (E index) ascribes every firm a score from 0 to 6 and is calculated as the number of governance (entrenching) provisions a given firm has in place at a given year. $AwCEO_i$ is the number of award-winning CEO outside directors on the board of directors. That is, we count the number of outside directors who are CEO's of other firms and have won a CEO award. As before, we use three variations of this variable in our regression specification. First, the number of award-winning CEOs who serve on the board as outside directors (Number), then an indicator variable equal to one if a firm has at least one award-winning CEO serving as outside director on its board (Dummy) and finally, the fraction of directors who are award-winning CEOs and serve as outside directors of the firm (Fraction). All regressions control for firm- and year fixed effects, α_i and α_t . Similar to our previous specification, we include time-varying controls (X_{it}) such as board characteristics, firm characteristics, organizational complexity and CEO characteristics, and other firm characteristics prior studies show are related to firm performance and governance mechanisms.

In a second step we look at individual governance provisions by estimating the

following model:

$$Pr(Z_{it} = 1 \mid AwCEO_{it}, X_{it}) = G(\beta_1 + \beta_2 AwCEO + \beta_3 X'_{it}), \quad (3.3)$$

Z_{it} is a binary variable that takes the value 1 if the firm had an individual governance provision in a particular firm year. We estimate the model individually for the six governance provisions that make up the entrenchment index: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. $AwCEO_i$ is the number of award-winning CEO outside directors on the board of directors. That is, we count the number of outside directors who are CEO's of other firms and have won a CEO award⁴. Time-varying control variables (X_{it}) include board characteristics, firm characteristics, organizational complexity and CEO characteristics and other firm characteristics prior studies show are related to firm performance and governance mechanisms.

3.5.2 Results

Gompers et al. (2003) provide a detailed first investigation of corporate governance and firm performance. They find that an investment strategy based on low- vs. high-governance firms provides significant abnormal returns for the period 1990-1999. The governance index is constructed using all twenty-four governance provisions covered by the Investor Responsibility Research Center (IRRC). Several follow-on studies have since presented different approaches to refine the governance index of Gompers et al. (2003).

Cremers and Nair (2005) construct an index based on internal and external governance provisions based on four provisions of the Gompers et al. (2003) index and show that those four provisions are significantly negatively related to firm value, measured by Tobin's Q. However, the authors do not address the importance of the

⁴We restrict our analysis to one version of our variable of interest to preserve space. The results for the two alternative measures yield quantitatively similar results.

Table 3.6: Award-winning CEO outside directors and the entrenchment index

The table below reports regression results where the dependent variable is the entrenchment index (Bebchuk et al., 2009). The index comprises six individual governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. We use the number of award-winning CEO outside directors in column (1), an indicator variable equal to one if the firm has at least one award-winning CEO outside director in column (2) and the fraction of award winners to total board size in column (3). All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Entrenchment Index		
	(1)	(2)	(3)
AwCEO outside directors (Number)	-0.109** (-2.01)		
AwCEO outside directors (Dummy)		-0.135** (-2.03)	
AwCEO outside directors (Fraction)			-1.160** (-2.08)
LN(Board size)	0.233*** (2.81)	0.233*** (2.81)	0.229*** (2.76)
Fraction outside directors	0.389*** (3.34)	0.389*** (3.34)	0.389*** (3.34)
R&D expense	-0.121 (-0.38)	-0.118 (-0.38)	-0.123 (-0.39)
Capital expenditures	-0.313 (-1.28)	-0.313 (-1.28)	-0.311 (-1.27)
Capital intensity	0.013 (1.04)	0.013 (1.04)	0.013 (1.04)
Leverage	0.083 (1.43)	0.083 (1.42)	0.083 (1.43)
LN(Sales)	0.132*** (3.04)	0.132*** (3.04)	0.132*** (3.04)
Risk	-0.316*** (-3.55)	-0.316*** (-3.55)	-0.316*** (-3.55)
ROA	-0.406*** (-2.65)	-0.408*** (-2.66)	-0.406*** (-2.65)
ROA _{t-1}	-0.228* (-1.80)	-0.228* (-1.80)	-0.228* (-1.80)
ROA _{t-2}	0.013 (0.13)	0.013 (0.12)	0.012 (0.12)
Segments	0.023* (1.92)	0.023* (1.91)	0.023* (1.92)
CEO ownership	1.602*** (3.61)	1.603*** (3.61)	1.600*** (3.61)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	19941	19941	19941
R ²	0.025	0.025	0.025

remaining twenty governance provisions included in the original index and also make no attempt to further explore whether the four included provisions are individually important.

In a different approach, based on a broad set of 51 firm-specific provisions representing both internal and external governance, Brown and Caylor (2006) construct a Gov-Score and show that seven provisions underlying their index can sufficiently explain the relationship between governance and firm value.

We use the entrenchment index (E index) of Bebchuk et al. (2009) because the authors convincingly show that an index based on a small number of provisions is more successful in explaining the governance-firm value relationship. The results for the entrenchment index are presented in Table 3.6 and the results for the individual governance provisions in Table 3.7.

Our results support the notion (H2) that award-winning CEOs as outside directors are associated with better governance⁵. In particular, we find a significantly negative association between award-winning CEO outside directors and the entrenchment index. Higher values of the index indicate higher levels of entrenchment and, as such, weaker governance or shareholder protection.

Next, looking at individual governance provisions we find further support for our hypothesis. Estimating a logit fixed effects model allows us to look in more detail at the within-firm determinants of governance provisions in place⁶. Again, we can show that the presence of outside directors who are CEO's and have won an award reduces the likelihood of certain governance provisions being in place. We find a significant effect on three out of six provisions (staggered boards, limits to amend by-laws and supermajority requirements for mergers and acquisition). Most noteworthy, the coefficients on firm size and board size are both significant and

⁵We use the same set of control variables to be consistent throughout this paper. The results are robust if we use Tobin's Q instead of ROA and to the inclusion of additional controls.

⁶At the cost of reducing the sample size, in some cases considerably, we are better able to test whether governance provisions are directly related to award-winning CEO outside directors. In the case of charter amendments, for example, the sample size is reduced to 3,022 indicating that there is little overall variation in this specific governance provision.

positive, implying that as firms and boards grow larger, the board is more likely to implement provisions that are in the interest of the management and the board, rather than the shareholders. This points to the importance of our findings and the role highly reputable outside directors can play in improving governance and reducing agency conflicts. In sum, the results indicate that highly reputable outside directors, such as award-winning CEOs, can help improve governance provisions in place and thus can be viewed favourably from the perspective of the shareholders.

3.6 Explaining the valuation effect

In this section we explore different explanations for the valuation effect documented in Section 3.4. In particular, we examine the impact of lagged values of our dependent variables, differences in corporate governance, we control for firms whose current CEO has won a CEO award, examine whether the effect persists after the CEO's retirement, test whether the results are driven by the selection of our dependent variables, and finally whether the results are robust to additional variables⁷.

3.6.1 Can lagged performance measures explain the effect?

A natural question that arises is whether the value effect we document can be explained by past values of our performance measures. That is, do award-winning CEOs simply chose to sit on boards of firms that have performed best in the past and are likely to continue to do so in the future. To examine this question we include lagged values of Tobin's Q and ROA and re-estimate our baseline regression. Y_{t-1} and Y_{t-2} refer to the first and second lag of the dependent variable. The results are presented in Table 3.8. Results for Tobin's Q are in Panel A and results for ROA in Panel B⁸.

⁷Additionally, we have studied performance changes around director appointments employing methodologies used in Fich (2005) and Fahlenbrach et al. (2010). The results are provided in Appendix B.

⁸We have not included lagged values of the dependent variable in our baseline regression because it considerably reduces the size of our sample.

Table 3.7: Award-winning CEO outside directors and individual provisions

The table below reports logistic regression results where the dependent variables are the six individual governance provisions of the entrenchment index (Bechtuk et al., 2009). The six individual governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – *statistics* given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Staggered board	Limits to amend by-laws	Limits to amend charter	Super-majority	Golden parachutes	Poison pill
	(1)	(2)	(3)	(4)	(5)	(6)
AwCEO outside directors (Number)	-0.258** (-2.28)	-0.318* (-1.89)	0.621 (1.50)	-0.314* (-1.84)	-0.0739 (-0.70)	-0.175 (-1.59)
LN(Board size)	0.444*** (2.75)	0.433** (2.13)	-0.437 (-0.89)	0.490** (2.27)	0.457*** (2.90)	0.190 (1.23)
Fraction outside directors	0.379* (1.69)	-0.188 (-0.67)	1.586** (2.17)	-0.107 (-0.36)	0.907*** (4.14)	1.141*** (5.34)
R&D expense	0.542 (0.46)	-1.535 (-0.96)	6.089 (1.38)	1.133 (0.67)	-0.749 (-0.67)	2.733** (2.50)
Capital expenditures	0.039 (0.06)	-0.209 (-0.27)	-5.127** (-2.41)	-0.448 (-0.55)	-1.485** (-2.41)	0.253 (0.43)
Capital intensity	-0.182 (-1.63)	-0.050 (-0.36)	0.899*** (2.76)	0.219 (1.44)	-0.375*** (-3.38)	0.159 (1.54)
Leverage	0.672*** (4.10)	0.716*** (3.27)	0.0702 (0.12)	0.057 (0.26)	-0.241 (-1.49)	0.238 (1.51)
LN(Sales)	0.036 (0.53)	-0.011 (-0.12)	0.897*** (3.92)	0.177* (1.92)	0.220*** (3.24)	0.211*** (3.26)
Risk	-0.614*** (-3.62)	-0.693*** (-3.20)	-1.490*** (-2.72)	-0.769*** (-3.29)	-0.449*** (-2.72)	-0.238 (-1.46)
ROA	-0.422 (-1.15)	-0.843* (-1.76)	-0.566 (-0.43)	-0.149 (-0.30)	-0.996*** (-2.79)	-0.711** (-2.06)
ROA _{t-1}	-0.411 (-1.11)	-0.041 (-0.09)	-0.588 (-0.44)	-0.258 (-0.53)	0.169 (0.48)	-0.964*** (-2.79)
ROA _{t-2}	0.610** (2.02)	-0.111 (-0.29)	-2.964*** (-2.64)	0.191 (0.47)	-0.306 (-1.05)	-0.596** (-2.09)
Segments	0.049** (2.39)	0.051* (1.95)	0.092 (1.46)	0.041 (1.44)	-0.006 (-0.30)	0.040** (2.08)
CEO ownership	0.733 (0.71)	4.397*** (3.41)	7.882** (1.98)	-2.325* (-1.75)	8.602*** (8.14)	3.802*** (3.94)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	15912	12633	3022	11532	16423	16559

We find that the first and second lag have substantial explanatory power in explaining Tobin's Q and ROA. However, our results remain largely unchanged. The number of award-winning CEOs acting as outside directors is consistently related to firm value but not profitability. Accounting for past values of Tobin's Q, the coefficient on our variable of interest slightly decreases to 0.091 (compared to 0.134 in our baseline regression) but remains highly significant. Holding the value of debt constant, this implies a value effect of \$314 million. The inclusion of past values of ROA does not change the insignificant relation between award-winning CEOs as outside directors and the profitability of assets in place.

3.6.2 Differences in governance quality

It is well-known that governance provisions affect firm performance (Bebchuk et al., 2009; Gompers et al., 2003; Bhagat and Bolton, 2008). We have previously shown that firms with award-winning CEOs as outside directors have higher firm value, measured as Tobin's Q, and also better governance. To control for the possibility that the value effect may be driven by differences in quality of governance in this section we re-estimate our baseline regression including the entrenchment index in Panel A and the individual governance provisions in Panel B⁹. Results are reported in Table 3.9

Controlling for all the variables used in our baseline regression, we find that the valuation effect persists. Moreover, the results lend further support to the validity of the sample employed in this study. Similar to Bebchuk et al. (2009), we find that the entrenchment index is significantly negatively related to both firm value and firm profitability. Looking at individual governance provisions we find that limits to amend by-laws and poison pills in particular play an important role in determining firm value but do not affect our results. We thus conclude that while

⁹We do not include the entrenchment index in our baseline regression because it reduces our sample size by approximately 16%. Moreover, we have included the fraction of outside directors as an indirect measure of board independence.

Table 3.8: Lagged values of Tobin's Q and ROA and firm performance

The table below reports regression results for our baseline regression including lagged values of the dependent variable. The dependent variables are Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. Y_{t-1} and Y_{t-2} refer to the lagged values of the respective dependent variable. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. We use the number of award-winning CEO outside directors in column (1), an indicator variable equal to one if the firm has at least one award-winning CEO outside director in column (2) and the fraction of award winners to total board size in column (3). All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* - statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A	Tobin's Q		
	(1)	(2)	(3)
AwCEO outside directors (Number)	0.091*** (2.60)		
AwCEO outside directors (Dummy)		0.093** (2.22)	
AwCEO outside directors (Fraction)			0.884** (2.30)
Y_{t-1}	0.385*** (19.18)	0.385*** (19.20)	0.385*** (19.18)
Y_{t-2}	0.033** (2.34)	0.033** (2.34)	0.033** (2.34)
Control Variables as in Table 3.4	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	18141	18141	18141
R^2	0.431	0.431	0.431
Panel B	ROA		
	(1)	(2)	(3)
AwCEO outside directors (Number)	-0.001 (-0.27)		
AwCEO outside directors (Dummy)		-0.002 (-0.54)	
AwCEO outside directors (Fraction)			-0.008 (-0.25)
Y_{t-1}	0.379*** (22.41)	0.379*** (22.42)	0.379*** (22.42)
Y_{t-2}	-0.066*** (-6.39)	-0.066*** (-6.39)	-0.066*** (-6.39)
Control Variables as in Table 3.5	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	18161	18161	18161
R^2	0.395	0.395	0.395

Table 3.9: Governance and firm performance

The table below reports regression results for our baseline regression including additional control variables. As before the dependent variables are Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. Panel A controls for corporate governance measured using the *entrenchment index* of (Bebchuk et al., 2009) and Panel B uses the six individual governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments that make up the entrenchment index. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Tobin's Q	ROA
Panel A	(1)	(2)
AwCEO outside directors (Number)	0.138*** (2.78)	-0.003 (-0.73)
Entrenchment index	-0.019*** (-3.61)	-0.002*** (-3.12)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	19941	20014
<i>R</i> ²	0.310	0.276
Panel B	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.138*** (2.78)	-0.003 (-0.72)
Staggered board	-0.018 (-1.08)	-0.000 (-0.06)
Limits to amend by-laws	-0.037** (-2.19)	-0.002 (-1.08)
Limits to amend charter	0.001 (0.02)	-0.002 (-0.39)
Supermajority	-0.009 (-0.43)	-0.000 (-0.05)
Golden parachutes	-0.041*** (-2.64)	-0.002 (-1.52)
Poison pill	0.002 (0.11)	-0.004** (-2.40)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	19941	20014
<i>R</i> ²	0.310	0.276

governance is clearly important, it cannot explain the valuation effect associated with award-winning CEOs on the board of directors.

3.6.3 Current CEO is CEO award winner

One potential concern is, that instead of being a proxy for the value added by CEO award winners, the positive association is due to the fact that the CEO is also a CEO award winner. When considering outside board positions, the CEO might feel the least risk and potentially greatest rewards can be derived from sitting on the

boards of CEOs who have also won a CEO award. While Malmendier and Tate (2009) find that the performance tends to revert to the mean following the CEO award, the positive and significant association could be driven by the CEO and not the board. To control for this possibility, we include an indicator variable equal to one if the CEO is a CEO award winner (*Current CEO award winner*). The results are presented in Table 3.10. Panel A presents results for Tobin’s Q and Panel B for ROA.

In line with our expectation, we find that *Current CEO award winner* is significantly and positively related to Tobin’s Q. The coefficient of 0.228 is highly significant (p<0.000) and economically almost twice the size of the effect observed for award-winning CEO outside directors. Most importantly, however, the effect observed for our variable of interest remains positive and highly significant. The coefficient observed for *AwCEO outside directors* is 0.128 and highly significant (p<0.000). Compared to our baseline regression, the coefficient is slightly smaller (0.128 vs 0.134). Moreover, the observed *t-statistic* is 2.96 compared to 3.04 in the main regression. The value effect associated with award-winning CEOs on the board decreases from \$468 million (Table 3.4) to \$435 million ($\$16,726 \times 0.026$). The results indicate that \$33 million of the explained value effect (\$468 million - \$435 million) are indeed attributable to the CEO being a CEO award winner. Nevertheless, despite adding an additional and highly significant explanatory variable, our results hold. Award-winning CEO outside directors are associated with significantly higher firm value, but are in no way related to operational efficiency.

3.6.4 Alternative specifications of dependent variables

Another possibility is that the association between Tobin’s Q, even though it is the standard performance measure used in the governance literature (Demsetz and Lehn, 1985; Morck et al., 1988; McConnell and Servaes, 1990; Lang and Stulz, 1994; Yermack, 1996; Coles et al., 2008, 2015; Kang et al., 2016), and firm value arises

Table 3.10: Current CEO award winner and firm performance

The table below reports regression results where the dependent variable is Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. *Current CEO award winner* is an indicator variable equal to one if a firm's current CEO has won a CEO award. Results for Tobin's Q are reported in Panel A and results for ROA in Panel B. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A	Tobin's Q		
	(1)	(2)	(3)
AwCEO outside directors (Number)	0.128*** (2.96)		
AwCEO outside directors (Dummy)		0.140*** (2.76)	
AwCEO outside directors (Fraction)			1.256*** (2.70)
Current CEO award winner	0.228*** (4.01)	0.229*** (4.02)	0.229*** (4.01)
Control Variables as in Table 3.4	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23128	23128	23128
<i>R</i> ²	0.341	0.341	0.341
Panel B	ROA		
	(1)	(2)	(3)
AwCEO outside directors (Number)	-0.002 (-0.61)		
AwCEO outside directors (Dummy)		-0.004 (-1.10)	
AwCEO outside directors (Fraction)			-0.025 (-0.56)
Current CEO award winner	0.002 (0.34)	0.002 (0.35)	0.002 (0.34)
Control Variables as in Table 3.5	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23239	23239	23239
<i>R</i> ²	0.281	0.281	0.281

randomly and is not actually due to a value effect.

We take several precautions to make sure that is not the case. In Panel A, we use the natural logarithm of Tobin's Q and the natural logarithm of the industry-adjusted Tobin's Q (Bebchuk et al., 2009) and re-estimate our baseline regression. The industry-adjusted Tobin's Q is calculated as a firm's Tobin's Q minus the median industry Tobin's Q. Industry is defined using the 48 industry classifications of Fama and French. This allows us to better control for potential outliers or industry-specific results. In Panel B, we use the market-to-book ratio as an alternative measure of valuation and return on sales (ROS) as an alternative measure of operational efficiency¹⁰. The results are reported in Table ??.

Our results are robust to all specifications. Coefficients for the natural logarithm of Tobin's Q and the natural logarithm of industry-adjusted Tobin's Q are both positively associated with firm value. The results are also robust to the use of market-to-book and return on sales as alternative dependent variables. Again, we document a highly significant value effect, but no effect on operational efficiency.

3.6.5 Additional control variables

Finally, it is possible that the positive association with Tobin's Q is caused by other omitted variables. We include all variables included in Coles et al. (2008) and Coles et al. (2015) in our baseline regression and additionally control for lagged values of our dependent variables and several other specifications to confirm the robustness of the observed value effect. In this subsection, we control for additional potentially omitted variables. Specifically we include measures of institutional ownership, firm age and board diversity.

¹⁰In another unreported specification we use Sales/Assets instead of ROS but the results remain unchanged.

Table 3.11: Alternative dependent variables and firm performance

The table below reports regression results of our baseline regression using the natural logarithm of Tobin's Q and the natural logarithm of an industry-adjusted Tobin's Q in Panel A and the Market-to-book ratio and return on sales (ROS) as an alternative measure of valuation and operational efficiency in Panel B. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. *Industry-adjusted Tobin's Q* is calculated as a firm's Tobin's Q minus the median industry Tobin's Q. Industry is defined using the 48 industry classifications of Fama and French. *Market-to-book* is market capitalization over book equity and *ROS* is operating income before depreciation over lagged sales. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A	LN(Tobin's Q)	LN(industry-adjusted Tobin's Q)
	(1)	(2)
AwCEO outside directors (Number)	0.041*** (2.65)	0.176*** (2.64)
Control Variables as in Table 3.4	Yes	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23128	11821
R^2	0.378	0.169
Panel B	Market-to-Book	ROS
	(1)	(2)
AwCEO outside directors (Number)	0.412*** (2.62)	0.056 (0.80)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23127	20769
R^2	0.173	0.012

3.6.5.1 Institutional ownership

Intervention by institutional blockholders is widespread (McCahery et al., 2016) and stronger external monitoring or intervention by institutional investors could affect firm value. Stronger external monitoring may be conducive to firm value and the governance provisions in place. We use the number of institutional blockholders that own more than 10% of the common shares outstanding as a proxy for external monitoring and re-estimate our baseline regression.

The results are presented in Panel A of Table 3.12. Our results remain unchanged. Institutional ownership does not affect the positive association between award-winning CEO outside directors and Tobin's Q. While being significantly negatively related to ROA, the coefficient of interest remains insignificant.

3.6.5.2 Firm age

It is possible that firm age is related to the number of award-winning CEOs on the board and to firm value. In particular, award-winning CEOs may sit on young and high-growth firms. If this was the case, the association with firm value could arise through a selection process. Field et al. (2013), for example, show that newly listed and less established firms have greater need for board advising and could particularly benefit from CEO award winners on the board of directors. We include the natural logarithm of firm age as an additional control and re-estimate the baseline regression.

The results are presented in Panel B of Table 3.12. We find that firm age is negatively associated with Tobin's Q and ROA. The link between award-winning CEOs and firm value, however, remains unchanged. The results confirm the view that older firms generally have less growth opportunities and thus lower firm value. Moreover, our results indicate that as a firm matures, the return on assets decreases. The documented effect is highly statistically significant.

3.6.5.3 Board diversity

Next, we specifically look at board diversity and its potential effect on firm value. We measure diversity across two dimensions: gender (the fraction of female directors on the board) and non-US employed board members (the fraction of directors whose primary employment is outside the US).

Greater diversity could affect firm value in two ways. First, greater diversity could lead to an increase in firm value (Carter et al., 2003; Kim and Starks, 2016). Boards with award-winning CEOs may simply be more diverse and as a result positively associated with firm value. Another view on diversity is, that regulations requiring a certain percentage of minority representation on the board can have an adverse effect on firm value (Dittmann et al., 2010; Adams and Ferreira, 2009). Therefore, we include a measure of gender diversity and test its effect on our results.

The motivation to include nationality as another dimension of diversity stems from recent research that discusses the role of foreign directors (Masulis et al., 2012; Naveen et al., 2013). Without providing clear predictions on the effect on firm value, the results imply that different perspectives and expertise can improve board decision-making and for example reduce board groupthink (Coles et al., 2015).

The results are presented in Panel C of Table 3.12. Both measures of diversity are insignificantly related to Tobin's Q and return on assets. We conclude that the value effect is robust and not affected by measures of board diversity.

3.6.6 Are CEO award winners equally valuable after retiring from their CEO position?

An interesting follow-on question that arises is whether the positive association between award-winning CEOs and firm value persists after the CEOs retirement. This allows us to further investigate whether the CEO adds value through his position as CEO or whether his individual qualities and experience are the sole driver of the valuation effect. If, for example, this was the case the positive association should persist following the CEOs retirement. However, if firms derive value from the directors CEO position, retired CEOs would be considered less valuable.

We evaluate this question using the same methodology and empirical strategy outlined before. However, this time we specifically look at outside directors who are retired CEOs and have won a CEO award (*Retired AwCEO outside directors*). As before we use the total number, an indicator variable and the fraction of retired award-winning CEOs serving as outside directors on the firm's board. The results for Tobin's Q are presented in Panel A and the results for ROA are presented in Panel B of Table 3.13.

We find no indication that retired CEO award winners are associated with higher firm valuation or profitability. The coefficients are uniformly insignificant across all specification. Our results lend support to our interpretation that award-winning CEOs, at least partially, derive value from their CEO position.

Table 3.12: Additional control variables and firm performance

The table below reports regression results of our baseline regression using the natural logarithm of Tobin's Q and the natural logarithm of an industry-adjusted Tobin's Q in Panel A and the Market-to-book ratio and return on sales (ROS) as an alternative measure of valuation and operational efficiency in Panel B. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. *Industry-adjusted Tobin's Q* is calculated as a firm's Tobin's Q minus the median industry Tobin's Q. Industry is defined using the 48 industry classifications of Fama and French. *Market-to-book* is market capitalization over book equity and *ROS* is operating income before depreciation over lagged sales. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A	Institutional ownership	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.134*** (3.04)	-0.002 (-0.58)
Blockholder	-0.019 (-1.45)	-0.006*** (-4.24)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23128	23239
R^2	0.339	0.282
Panel B	Firm age	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.137*** (3.09)	-0.001 (-0.32)
LN(Firm age)	-0.140* (-1.75)	-0.042*** (-6.30)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23128	23239
R^2	0.340	0.288
Panel C	Board diversity	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.153*** (3.16)	-0.004 (-0.96)
Fraction female directors	-0.168 (-1.18)	0.008 (0.53)
Fraction international directors	-0.022 (-0.70)	-0.002 (-0.59)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	18547	18625
R^2	0.329	0.277

Table 3.13: Retired award-winning CEO outside directors and firm performance

The table below reports regression results where the dependent variable is Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. *Retired AwCEO outside director* is the number of outside directors who are retired CEOs of other firms and have won a CEO Award. Results for Tobin's Q are reported in Panel A and results for ROA in Panel B. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Tobin's Q		
	(1)	(2)	(3)
Retired AwCEO outside directors (Number)	-0.038 (-0.93)		
Retired AwCEO outside directors (Dummy)		-0.046 (-0.86)	
Retired AwCEO outside directors (Fraction)			-0.316 (-0.67)
Control Variables as in Table 3.4	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23128	23128	23128
R^2	0.338	0.338	0.338
	ROA		
	(1)	(2)	(3)
Retired AwCEO outside directors (Number)	0.006 (1.56)		
Retired AwCEO outside directors (Dummy)		0.007 (1.42)	
Retired AwCEO outside directors (Fraction)			0.066 (1.59)
Control Variables as in Table 3.5	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23239	23239	23239
R^2	0.281	0.281	0.281

3.7 Robustness tests

Having established our main results, we present further robustness tests of our two hypotheses. To account for nonlinear dependencies and the fact that firms with and without award-winning CEOs as outside directors differ on many key dimensions, we use a propensity score matched sample and re-examine our predictions. Finally, we use a modification of our variable of interest and count the number of CEO awards held by all CEO outside directors as opposed to counting the number of CEO award winners¹¹.

3.7.1 Propensity score matched sample

The univariate results presented in Table 3.3 show that firms with award-winning CEOs as outside directors differ substantially from the average firm in our sample. If the linear controls used in the main analysis do not adequately account for these differences, unaccounted nonlinear factors could cause the firm value effect. An empirical approach to address this issue is to create a propensity score matched sample (Rosenbaum and Rubin, 1983; Dehejia and Wahba, 2002).

The procedure works as follows. Using a probit model, we first regress the number of *AwCEO outside directors* on all the control variables used in our main analysis (Table 3.4). We then estimate the probability that a firm has a CEO award winner as outside director and match firms on the closest propensity score. We match without replacement and require the propensity score to be within $\pm 5\%$ of each other. The resulting sample consists of 624 matched observations and a total of 1,248 firm-year observations.

We present univariate results in Panel A and multivariate in Panel B of Table 3.14. The multivariate specification takes the same form as in our main analysis. Using a propensity score matched sample to address the possibility that firms with

¹¹We report additional robustness tests controlling for outliers and certain industries in Appendix B.

Table 3.14: Propensity score matched sample

The table presents univariate and multivariate results on a propensity score matched sample. The observations are matched on the closest propensity score. Matching is done without replacement and the propensity score for a matched pair is required to be within $\pm 5\%$. The dependent variables are Tobin's Q, ROA and the entrenchment index by (Bebchuk et al., 2009). *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. The *entrenchment index* consists of six individual governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. Univariate results are presented in Panel A and multivariate results in Panel B. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Award-winning CEO Outside Directors	No award-winning CEO Outside Directors	Difference	p-value for test (1)=(2)
Panel A	(1)	(2)	(3)	(4)
Tobin's Q	2.171	2.011	0.159	0.049
ROA	0.161	0.161	0.000	0.987
Entrenchment index	1.967	2.137	0.170	0.034

	Tobin's Q	ROA	Entrenchment index
Panel B	(1)	(2)	(3)
AwCEO outside directors (Number)	0.214*** (2.99)	0.005 (1.01)	-0.132** (-2.13)
LN(Board size)	0.106 (0.56)	-0.006 (-0.36)	0.787*** (3.11)
Fraction outside directors	-0.520* (-1.91)	-0.017 (-0.68)	1.133*** (3.05)
R&D expense	6.116*** (8.05)	0.429*** (4.52)	-1.211 (-1.19)
Capital expenditures	-2.537* (-1.83)	0.730*** (6.85)	2.416* (1.83)
Capital intensity	-0.0929 (-1.46)	-0.0267** (-2.48)	-0.404** (-2.18)
Leverage	-0.834*** (-3.88)	-0.0733*** (-3.32)	0.631*** (2.78)
LN(Sales)	0.060** (2.27)	0.006 (1.47)	-0.353*** (-7.86)
Risk	0.673* (1.70)	-0.174*** (-6.15)	-0.658** (-2.12)
ROA	5.829*** (9.64)		-1.318** (-2.11)
ROA _{t-1}	1.375** (2.18)		0.593 (0.77)
ROA _{t-2}	1.092* (1.79)		0.521 (0.97)
Segments	-0.042** (-2.38)	-0.004* (-1.93)	0.007 (0.26)
CEO ownership	6.193** (2.05)	-0.075 (-0.70)	0.338 (0.15)
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	1248	1248	1052
R ²	0.535	0.313	0.136

Table 3.15: Outside directors number of CEO awards

The table below reports regression results where the dependent variable is Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. *Number of CEO awards* is the number of CEO awards held by all outside directors on the board of directors. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Tobin's Q	ROA	Entrenchment index
	(1)	(2)	(3)
Outside directors number of CEO awards	0.044** (2.18)	-0.000 (-0.17)	-0.087** (-2.02)
Control Variables as in Table 3.4	Yes	No	No
Control Variables as in Table 3.5	No	Yes	No
Control Variables as in Table 3.6	No	No	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23128	23239	19941
R^2	0.339	0.281	0.026

award-winning CEOs represent a non-random sample and differ significantly from the other firms in our sample, our results mirror those of our main analysis. Our univariate results indicate that award-winning CEO outside directors are associated with higher firm value and better governance but do not show any sign of improved profitability. This pattern is confirmed by our multivariate results.

3.7.2 Alternative variable definition: Outside directors number of CEO awards

As an additional robustness check we consider an alternative definition for our variable of interest. Instead of counting the number of award-winning CEOs who serve as outside directors on a firm's board, we count the total number of CEO awards held by all outside directors (*Outside directors number of CEO awards*).

Re-estimating our baseline regression using the number of awards confirm our results. However, the coefficient is substantially smaller indicating that the results are not driven by a few individuals with a high number of awards, but rather that the person is more important than the number of awards held.

3.8 Conclusion

Given the limited effectiveness of director compensation as an incentive, reputation concerns have sparked considerable interest in the literature. This paper adds to the understanding of reputation as the primary incentive device in the director labour market. We explore whether a system relying on reputation-based matching between firm and director is in the interest of shareholders. As a primary agent to protect shareholder interests, it is not clear whether directorships awarded and accepted based on reputation can result in effective monitoring.

We explore the consequences of this reputation-based director-firm matching based on a small group of award-winning CEOs. Given their track record, extensive managerial experience and the CEO award, these CEOs are highly demanded as outside directors. More importantly, however, they have no financial incentives to accept outside directorships. Instead, it can be viewed as a reputation enhancing activity. Given their strong incentives to preserve their reputation, award-winning CEOs are in a unique position to be effective monitors.

We find evidence of a considerable positive value premium attached to firms with award-winning CEOs as outside directors. There is no evidence that the presence of award-winning CEOs on the board is in any way related to a firm's operating performance (ROA). The results match our expectations and can be consolidated with the findings of Fahlenbrach et al. (2010) who find that appointing CEO directors has no observable effect on operating performance. Moreover, given outside directors' limited access to firm- and project-specific information, they have little scope to influence day-to-day management of the firm or its assets (Demb and Neubauer, 1992; Adams et al., 2010; Schwartz-Ziv and Weisbach, 2013). Instead, outside directors' contributions to firm value are likely to be through the channel of value-added growth or higher return on assets required in the future (Kang et al., 2016).

Further, we show that reputable directors can result in better governance. Given their strong self-interest to protect their reputation, it is in their interest to promote

sound corporate governance. By doing so, they limit the likelihood of managerial malfeasance and also the reputational damage incurred from oversight failure or poor performance.

In summary, the findings underscore the importance of reputation incentives when examining the quality of director monitoring. They highlight that whether a board is busy or not does not ultimately determine its effectiveness. Moreover, it shows that firms can benefit from recruiting highly reputable directors and provides a partial explanation for why CEOs are highly demanded as outside directors. In the case of award-winning CEOs, the consequences of reputation-based director-firm matching can be viewed positively by shareholders.

Chapter 4

Award-winning CEOs in the board room: the case of acquisitions

4.1 Introduction

Mergers and acquisitions represent a large portion of US firms' overall investment and advising management on M&A's represents one of the most important board functions. Several recent papers show that individual director attributes (Huang et al., 2014; Francis et al., 2015; Güner et al., 2008; Dittmann et al., 2010) and director networks (Ishii and Xuan, 2014; Cai and Sevilir, 2012; Schmidt, 2015; Reneboog and Zhao, 2014; Wu, 2011) can significantly affect acquisition outcomes.

In this chapter we examine the role of award-winning CEOs on corporate boards and analyse whether their involvement in the acquisition-making process can yield significant improvements in M&A outcomes. These so-called "Superstar CEOs" offer a unique range of characteristics and attributes that make them a valuable asset in respect to target selection and throughout merger negotiations.

Given their proven track record, managerial experience and expertise, these CEOs are among the most skilled and highly-demanded executives available in the director labour market. Fahlenbrach et al. (2010), for example, point out that firm's still consider CEO-level experience as one of the most important and desired qualities when appointing a new director. However, while the role of CEO award winners has been studied in relation to the CEO's firm (Malmendier and Tate, 2009), little

is known about the role these award winners subsequently play on corporate boards. However, they can play a particularly important role for several reasons.

Once appointed, award-winning CEOs are likely to exert considerably more influence on the board of directors and the management team than the average outside director. In times of conflict or disagreement, they can leverage their status to critically comment on, or openly oppose acquisition plans¹ (Fahlenbrach et al., 2010). Among others, Fogel et al. (2014) argue that powerful independent directors, proxied using their social network power, are better able to monitor and advise management because of their access to information and greater credibility in challenging top management. Moreover, CEOs, in contrast to other, non-corporate directors, are better equipped to identify suitable targets, evaluate potential synergies and conflicts and ultimately improve M&A outcomes.

Moreover, CEOs have access to large social and business networks. These networks can be tapped to recruit executives, learn about new business opportunities and gather information about potential acquisition targets. For instance, Renneboog and Zhao (2014) show that director networks can provide distinct informational advantages throughout M&A negotiations. This is further supported by Cai and Sevilir (2012), who show that firms obtain higher announcement returns when acquirer and target share a common director². Therefore, through the provision and access to large networks, CEOs provide further resources that can help firms make better acquisition decisions.

Finally, in addition to their individual qualities and experience, reputation and career concerns make award-winning CEOs valuable from the shareholders point of view. Reputation is considered the primary non-financial risk concern of corporate directors and can serve as an incentive to allocate time and resources to properly

¹The analysis of firm-level outcomes revealed that outside directors who are CEO award winners sit on significantly more board committees than other outside directors.

²However, the association between networks and announcement returns is not clear-cut. Ishii and Xuan (2014) and Wu (2011) find a negative correlation between connections and announcement returns while Schmidt (2015) finds higher announcement returns when advisory needs are high and lower returns when monitoring needs are high.

monitor management (Masulis and Mobbs, 2016, 2014; Jiang et al., 2015). Thus, CEO award winners have a strong personal interest to monitor and advise management carefully.

Further, having advised a firm or its management on particularly value-destroying acquisitions could be seen as a sign of weak monitoring and could negatively affect the directors career. Board decisions that indicate governance failures (Fich and Shivdasani, 2007) or weak monitoring (Brochet and Srinivasan, 2014; Fos and Tsoutsoura, 2014) have been shown to impede the director’s ability to obtain directorships in the future. It is thus in the interest of directors to avoid being associated with largely value-destroying deals.

Given the large scope of CEO award winners to positively affect the acquisition-making process, we anticipate a positive effect on a firm’s acquisition outcomes. In particular, we test this hypothesis by examining M&A completion, the likelihood of diversification, M&A performance and several important deal characteristics.

We begin by collecting all mergers and acquisitions for S&P 1500 firms covered by *RiskMetrics* from 1996-2013 from the Security Data Company’s (SDC) U.S. Mergers and Acquisitions Database. Our final sample consists of 3,157 mergers and acquisitions. Similar to Malmendier and Tate (2009), we use a hand-collected list of CEO awards and identify award-winning CEOs serving as outside directors in the *RiskMetrics* database. After accounting for multiple award winners, we identify 429 individual award-winning CEOs in the *RiskMetrics* database. We define *Award-winning outside directors* as those directors who are active or former CEOs, have won at least one CEO award and hold an outside position at a firm in our sample. Using this methodology we identify 236 M&A’s that were completed while the acquirer had at least one award-winning outside director on its board.

Using the total and cumulative number of completed M&A’s by the firms in our sample, we find that firms with award-winning outside directors complete significantly fewer acquisitions. Our results imply that while larger firms, on average,

complete more M&A's, an increase in the number of award-winning outside directors has the opposite effect. This finding can be interpreted as an indication that managerial experience in the form of highly skilled CEOs on the board of directors can help firms focus on their internal growth and potentially reduce the likelihood of empire-building and value-destroying behavior by the management. This view is further supported by the finding that the same firms are also less likely to diversify. Diversification in particular is often associated with a discount in firm value (Lang and Stulz, 1994; Berger and Ofek, 1995; Servaes, 1996; Lamont and Polk, 2002), and can be used as a measure of deal quality (Malmendier and Tate, 2008). The evidence supports the view that award-winning outside directors can help firms preserve value by reducing the number of M&As and likelihood of diversification.

Next, to directly assess acquisition outcomes, we look at acquisition performance. We use three different metrics to assess a firm's acquisition performance: cumulative abnormal announcement returns and abnormal dollar return to evaluate short-run performance and a monthly calendar-time portfolio approach to evaluate long-term performance.

Overall, the announcement returns for S&P 1500 firms from 1996-2013 are slightly positive. The returns for firms with award-winning outside directors, on the other hand, are consistently negative across the three-day $(-1,+1)$, five-day $(-2,+2)$ and eleven-day $(-5,+5)$ event window. The differences between those completed by firms with award-winning outside directors and all other firms ranges from 0.96% for the three-day $(-1,+1)$ event window to 1.26% for the eleven-day $(-5,+5)$ window and are statistically significant. Moreover, diversifying deals and those with a relative value of more than 25% of the market value of the acquirer are particularly value destroying. Upon the inclusion of firm and deal characteristics, however, a simple regression model reveals no significant signs of underperformance.

Due to the size of firms with award-winning outside directors cumulative abnormal returns might not reveal the full extent of value destruction caused by

M&A's. To further assess acquisition performance, we calculate abnormal dollar returns (Moeller et al., 2004). Throughout the sample period, S&P 1500 firms spent \$2.2 trillion on mergers and acquisitions. Firms with award-winning outside directors were involved in 7% of all M&A's, responsible for 23% of the total dollar value spent on M&A's and associated with 68% of the dollar losses. They spent almost four times more on every acquisition (\$2.2 billion vs. \$585 million) and on average lost approximately nine times more per acquisition (\$20 million vs. \$182.9 million). Moreover, an evaluation of deals resulting in losses greater or equal to \$1 billion, reveals that firms with award-winning outside directors are associated with 40% of these so-called large loss deals.

Finally, to rule out that firms with CEO award winners on the board perform badly upon announcement but outperform in the long-run due to better target selection and synergies, we evaluate the long-term performance of acquisitions using the Fama-French three factor model and value-weighted monthly portfolio returns. Similar to our previous results, we find no indication that acquisitions made by firms with award-winning CEOs perform better in the long run.

Next, to evaluate whether CEO award winners can improve certain important aspects of the acquisition process rather than performance, we examine various deal characteristics. Specifically, we focus on deal value, negotiation time and the method of payment. We first assess whether completed deals differ in total and relative deal size. Not surprisingly, we find that firms with award-winning CEOs as outside directors complete deals that are significantly larger in total dollar value. However, they do not differ significantly in relative size.

Negotiation time is another important aspect of M&A negotiations. Longer negotiation times can lead to an increase in transaction costs, increase uncertainty and the potential for moral hazard. Reducing negotiation time could thus be a potential avenue through which award-winning outside directors can positively affect the acquisition process. Their large social and business networks allow them an infor-

mational advantage and their respective firm to reduce the time and costs involved in gathering information and closing the deal (Renneboog and Zhao, 2014; Karsten et al., 2015). Similar to Renneboog and Zhao (2014), we find some evidence that CEO award winners are able to reduce the time needed to complete M&A negotiations. However, the effect disappears upon the inclusion of industry fixed-effects. Thus indicating that negotiation times may differ significantly across industries and that controlling for industry-effects is important when analyzing negotiation time.

While the evidence suggest that the method of payment can affect acquisition performance (Travlos, 1987; Chang, 1998; Fuller et al., 2002), issues surrounding potential changes in corporate control following an equity offer seem to dominate the choice of payment. A cash payment is strictly preferred over an equity payment if the target's ownership structure is concentrated and institutional or blockholder ownership levels at the acquiring firm are intermediate or low (Faccio and Masulis, 2005). Additionally, firm size is also a major determinant of the chosen method of payment (Moeller et al., 2004). For example, Moeller et al. (2004) find that cash payments are significantly more likely in acquisitions by small firms. We find that firms with CEO award winners as outside directors are less likely to conclude a deal with an all cash or cash and mixed payment. We do not find a significant effect on the use of equity.

Overall, our results suggest that deals completed by firms with award-winning CEOs on their board of directors mirror deals of large firms. It is well-known that large deals are viewed especially critically by the market (Moeller et al., 2004, 2005). We conclude that while there is evidence that these firms indeed complete fewer acquisitions and diversifying bids, bids that involve CEO award winners are especially value-destroying. The total dollar loss incurred through acquisitions is substantial. They are involved in less than a tenth of the acquisitions in our sample but responsible for over two-thirds of the dollar losses. Our evidence shows that the ability of individual directors to improve M&A performance is limited. Firm and

deal size seem to primarily determine acquisition performance and deal structure.

However, our finding that individual directors may only play a limited role in respect to acquisition outcomes, cannot necessarily be generalized. Award-winning CEOs sit predominantly on the boards of large firms. One possible explanation for our findings would be that once firms reach a certain size, acquisition decisions might involve considerations such as preserving market share or buying out a competitor that are costly but part of a larger overall strategic agenda. Moreover, directors at large firms may be preoccupied with their role as monitors and fail to engage actively in strategic considerations such as acquisition plans.

Finally, the results can be interpreted based on the findings of Harford and Schonlau (2013). The authors find that as a CEO it pays to be involved in large M&A's irrespective of whether they are value-creating or value-destroying. Large acquisitions, in particular, are associated with an increase in the number of subsequent board seats for the acquiring CEO, target CEO, and the directors involved. Thus, from the directors point of view the involvement in large acquisitions and not necessarily acquisition outcomes could be the most important consideration when advising management. This interpretation challenges the notion that directors can mitigate conflicts of interest between shareholders and management (Morck et al., 1990; Jensen, 1986).

Our analysis complements a growing body of research that relates corporate governance to a firm's acquisition decision with particular attention to board structure and the type of directors that sit on the board (Masulis and Mobbs, 2011; Fahlenbrach et al., 2010; Huang et al., 2014; Ishii and Xuan, 2014; Renneboog and Zhao, 2014; Cai and Sevilir, 2012). It is also more broadly related to the literature on the influence of individual managers and directors on corporate decisions (Bertrand et al., 2003; Xuan, 2009). CEO award winners are well-suited for the purpose of this study for several reasons. Their services are highly demanded, they are better able to influence the board decision-making process due to their CEO-experience

and proven track record and have access to large social networks that can be used to gather information and identify suitable targets. As such, they are in a unique position to positively affect acquisition outcomes.

Moreover, this paper opens new research avenues to better understand how M&A's affect director reputation. Reputation is considered the primary non-financial risk concern of corporate directors and can serve as an incentive to allocate time and resources to properly monitor management (Masulis and Mobbs, 2016, 2014; Jiang et al., 2015; Fogel et al., 2014). Outside directors have a personal interest to monitor and advise management carefully to not impede their ability to attain future board positions (Fich and Shivdasani, 2007; Ertimur et al., 2012; Fos and Tsoutsoura, 2014; Brochet and Srinivasan, 2014). Further research should try to understand the trade-off between increased visibility and reputation through larger firm size and the risk of being associated with large and value-destroying acquisitions.

The organization of this paper is as follows. Section 4.2 introduces the empirical predictions of this paper. Section 4.3 discusses the sample, data and gives descriptive statistics. The results are presented in Section 4.4. The conclusion follows in Section 4.5.

4.2 Empirical predictions and methodology

M&A's are among the most readily observable form of corporate investment. It is well known that managers do not always act in the best interest of shareholders and sometimes extract private benefits at their expense. Jensen (1986) argues that managers can realize substantial personal gains from empire-building acquisitions and posits that managers with abundant cash flows are more likely to make value-destroying acquisitions than to return excess capital to shareholders. Conflicts of interest are especially grave in the case of diversifying bids or those aimed at high growth targets (Morck et al., 1990). As such, M&A's can accentuate the conflicts of

interest between managers and shareholders in large corporations (Berle and Means, 1932; Jensen and Meckling, 1976).

Advising management on M&A's is one of the most important board functions. In a recent paper covering listed firms in China, Jiang et al. (2015) show that mergers and acquisitions is one of the most voted and discussed topics in corporate board rooms. While it is well-known that corporate governance can affect a firm's acquisition performance (Masulis et al., 2007), recent evidence suggests that director networks and specific director attributes are also important determinants of M&A outcomes.

Award-winning CEOs are highly desirable as board members. They have extensive managerial CEO-experience, market and industry-specific knowledge and can avail of large social and business networks. While their role as CEOs has been studied (Malmendier and Tate, 2009), little is known in respect to the role they play as members of corporate boards. Given their overall profile, we anticipate that firms benefit from their presence on the board and specifically evaluate their role in relation to acquisition outcomes. In particular, we focus on M&A frequency, M&A performance and several important deal structures.

4.2.1 M&A completion and diversifying acquisitions

M&A's have been shown to be value-destroying for acquiring firm shareholders (Ishii and Xuan, 2014; Cai and Sevilir, 2012; Andrade et al., 2001; Wang and Xie, 2009; Renneboog and Zhao, 2014; Malmendier and Tate, 2008). The value-destruction is particularly well documented for large firms and large public acquisitions (Moeller et al., 2004). Being experienced executives, award-winning CEOs are likely to have experience with acquisitions. Moreover, CEO experience and market knowledge should equip award-winning outside directors to better advise management on M&A's and hence reduce the frequency and probability of value-destroying acquisitions. Thereby, they would protect the interest of shareholders and limit the

extraction of private benefits by the management.

Further, having advised a firm or its management on particularly value-destroying acquisitions could be seen as a sign of weak monitoring and could impede the director's ability to attain directorships in the future. Instances of governance failure have been shown to have a negative effect on a director's future career (Fich and Shivdasani, 2007; Brochet and Srinivasan, 2014; Fos and Tsoutsoura, 2014). It is thus in the interest of directors to avoid being associated with large and value-destroying deals.

Moreover, diversifying bids are viewed especially critically by shareholders. Many studies have found that diversification is associated with a discount in firm value (Lang and Stulz, 1994; Berger and Ofek, 1995; Servaes, 1996; Lamont and Polk, 2002). Moreover, Morck et al. (1990) and more recently Malmendier and Tate (2008) find negative announcement effects to diversifying acquisitions. As such, diversifying bids pose a greater risk to the management but also to the board of directors who oversee the acquisition. Finally, diversifying bids are more likely for small firms than for large firms (Moeller et al., 2004).

4.2.2 M&A performance

Several recent papers have pointed out that individual director attributes and board connections can have a significant effect on a firm's acquisition behaviour and performance (Ishii and Xuan, 2014; Cai and Sevilir, 2012; Renneboog and Zhao, 2014; Huang et al., 2014; Dittmann et al., 2010; Schmidt, 2015; Güner et al., 2008; Wu, 2011).

Several individual director characteristics and attributes have been studied in relation to acquisition performance. Huang et al. (2014), for example, show that investment banking experience of directors can lead to better M&A performance. Based on their experience and expertise they are able to assist firms in identifying suitable targets and reduce the costs associated with the deal. Similarly, Francis

et al. (2015) provide evidence that academic directors can play an important role on the board of directors and are associated with higher acquisition performance. Further, Masulis and Mobbs (2011) find that firms with inside directors who also have outside board positions make better acquisitions. Finally, looking at all CEO directors, Fahlenbrach et al. (2010) find no effect on acquisition outcomes.

Moreover, several recent papers point to board connections as a potential determinant of acquisition performance. Cai and Sevilir (2012) find that firms obtain higher announcement returns when acquirer and target share a common director. However, the association between networks and announcement returns is ambiguous. Ishii and Xuan (2014) and Wu (2011) find a negative correlation between connections and announcement returns for a sample of US acquisitions. Using social ties between the CEO and the firm's directors as a measure of board friendliness, Schmidt (2015) finds higher announcement returns when advisory needs are high and lower returns when monitoring needs are high.

Award-winning outside directors can contribute in different ways to the success of a potential transaction. Valuable experience and market knowledge as well as large social and business networks can provide distinct advantages. Thereby, allowing firms to select better acquisition targets and shorten the required negotiation time. Moreover, they might be able to achieve better acquisition returns because shareholders view bids supported by the CEO more positively and associate it with a smaller chance of failure.

4.2.3 Deal characteristics

Finally, we evaluate several deal structures that have been closely linked with particularly value-destroying acquisitions and examine whether firms with award-winning CEOs are more likely to structure M&As in a way that will yield positive (or less negative) outcomes.

4.2.3.1 Deal value

Value destruction for acquiring firms is particularly well-observed for large acquisitions. Henry and Jespersen (2002) report that more than half of all deals worth at least \$500 million end up destroying shareholder value. A report by Cools et al. (2007) arrives at similar conclusions and finds that deals with \$1 billion or more in value destroy significantly more value than smaller deals.

Despite the known fact that large acquisitions are associated with larger losses, large firms spent significantly more on acquisitions than small firms (Moeller et al., 2004). One reason may be that overly confident managers tend to bid for larger firms and overestimate their ability to extract benefits from the acquisition (Hayward and Hambrick, 1997; Roll, 1986; Malmendier and Tate, 2008). Another reason may be that firms may be willing to pay larger premia for large firms because they provide high private benefits (Grinstein and Hribar, 2004; Harford and Li, 2007). Interestingly, Moeller et al. (2004) also find that while large firms spent more in total dollar value, they spent less in relative terms.

4.2.3.2 Negotiation time

The duration of negotiation times is another important aspect of M&A's. From the moment when the intention of an acquisitions becomes known to the market, the target's board of directors needs to decide how to react to the proposed acquisition. The board can advise the shareholders to either accept or reject the acquisition proposal. A rejection may lead the acquirer to make a better offer or initiate a hostile takeover bid. The target firm can then accept the better offer or initiate various defence mechanisms to protect itself from a hostile takeover (Martynova and Renneboog, 2011).

Shorter negotiation times are in the interest of the acquiring firm. Longer negotiation times due to the target's resistance to accept the offer increases transaction costs, uncertainty and the potential for moral hazard. Shorter negotiation times

also mean lower transaction costs for the target firm, they reduce the probability of alternative bidders (Renneboog and Zhao, 2014; Karsten et al., 2015).

Moeller et al. (2004) find that it takes large firms longer to complete an acquisition because of an increased importance of regulatory issues which can prolong the negotiation process. However, several recent papers show that director characteristics or board structure can have a significant effect on the time needed to close a deal. Renneboog and Zhao (2014) find that connections between bidder and target directors are associated with a higher probability of takeover success and shorter negotiation times. Similarly, Karsten et al. (2015) show that legal expertise can significantly affect negotiation times. Legal expertise on the side of the bidding firm helps reducing the negotiation times whereas legal experts on the side of the target firm lead to an increase in the time necessary to close the deal.

4.2.3.3 Payment method

Another important aspect of M&A negotiation is the method of payment. While existing evidence suggests that the method of payment can affect acquisition performance (Travlos, 1987; Chang, 1998; Fuller et al., 2002) the issues surrounding potential changes in corporate control following an equity offer seem to dominate the choice of payment. A cash payment is strictly preferred over an equity payment if the target's ownership structure includes low to intermediate levels of institutional ownership (Faccio and Masulis, 2005). Finally, firm size also seems to play a role in the method of payment. Moeller et al. (2004) find that cash payments are more likely in acquisitions by small firms.

4.2.4 Methodology

We test our empirical predictions in a simple regression model:

$$Y_t = \alpha + \beta_1 AwOD_t + \beta_2 X_t' + \mu_t, \quad (4.1)$$

Y as the dependent variable is either the: total number of M&A's, cumulative number of M&A's, cumulative abnormal return, deal value or relative deal value or the negotiation times in days. $AwOD$ is the number of award-winning outside directors or an indicator variable indicating that a firm has at least one award-winning outside director on the board. Control variables (X_t) include board characteristics, firm characteristics and deal characteristics prior studies show are related to M&A completion and performance. Further we control for industry- and year fixed effects.

Additionally, we estimate a logit model using the same set of control variables where the dependent variable is a binary variable indicating whether an acquisition is diversifying or within-industry. Industry classes are defined using the Fama-French 48 industry classifications. And finally, we estimate a logit model to estimate the probability of an all cash or mixed and an all equity or mixed form of payment.

4.3 Sample selection, data and descriptive statistics

Our point of departure is the governance data from *RiskMetrics*. We include all firms covered in the sample for the period 1996-2013. The sample of acquisitions comes from the Securities Data Company's (SDC) US Mergers and Acquisitions database. We select mergers and acquisitions of S&P 1500 firms covered by *RiskMetrics*. We require the transaction is completed, the deal value is greater than \$1 million, the target is a public or private U.S. firm or a non-public subsidiary of a public or private firm, and that the acquirer is in the *RiskMetrics* database. As a further restriction, we consider only acquisitions in which the acquiring firm ends up with all the shares of the acquired firm and where the acquiring firm controls less than 50% of the target firm's shares before the announcement. We eliminate deals in which the deal value relative to the market value of the acquirer is less than 1%. We obtain a sample of 3,157 mergers and acquisitions. We match the M&A's in our sample to balance sheet data from *Compustat* and stock return data from *CRSP*.

To identify award-winning CEOs who serve as outside directors we use a hand-collected list of CEO Awards. The awards are from different sources: *Business Week*, *Financial World*, *Forbes*, *Chief Executive*, *Morningstar.com*, *Electronic Business Magazine*, *Industry Week* and the *Harvard Business Review* (Malmendier and Tate, 2009; Shemesh, 2014). In total, our sample includes 839 CEO Awards between 1975-2013. After accounting for those CEOs who have received multiple awards, we identify 582 individual award-winning CEOs. Of those, 429 appear as directors in the *RiskMetrics* database.

We use the CEO awards to identify extremely successful and well-known CEOs that are highly demanded as outside directors. Thereby we are able to test whether individual high-profile and highly skilled directors can positively affect M&A outcomes through their position on the board. Whereas it is difficult to imagine that the average outside director has much command and influence over the board, award-winning CEOs are powerful directors with a proven track record of success.

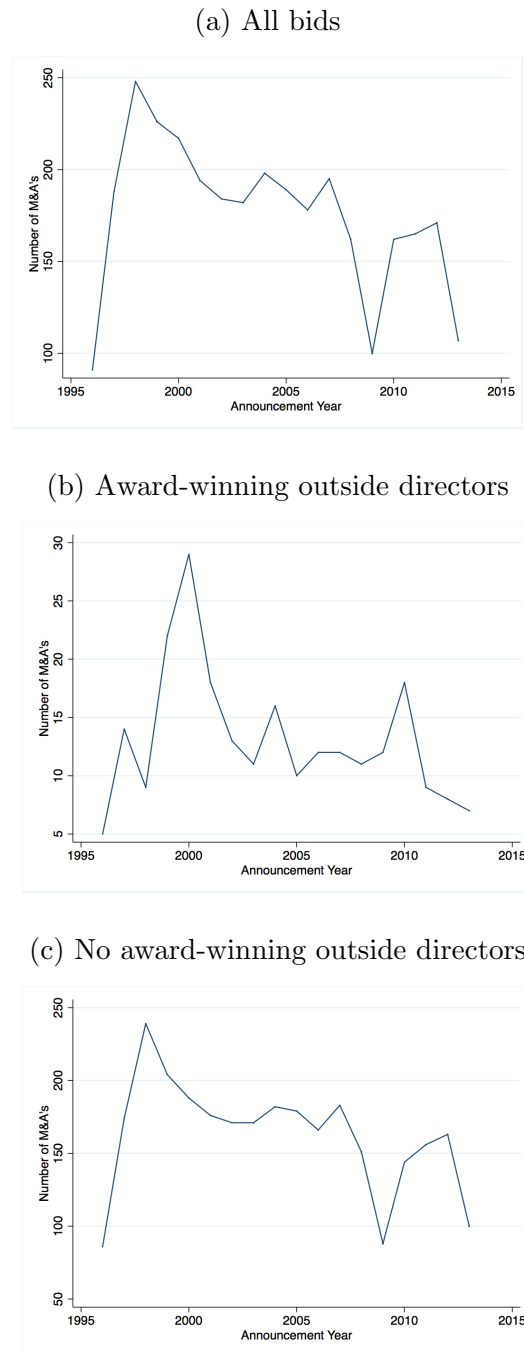
We define *Award-winning outside directors* as those directors who have won at least one CEO award and hold an outside position at a firm in our sample. We then match CEO Awards to individual directors and identify *Award-winning outside directors*. Using this methodology we identify 236 M&A's that were completed while the acquirer had at least one award-winning CEO serving as outside director on its board³.

Figure 4.1a shows the distribution of M&A's across announcement years. The distribution follows the pattern described in Moeller et al. (2004). The number of completed M&A's drops in the early 2000s, rebounds back in the mid 2000s and dips again in 2008. Panel A in Table 4.1 presents the distribution of M&A's of the full sample, those deals with award-winning CEOs as outside directors, and all other deals. Overall, the pattern of deals involving award-winning CEOs is distinctively different from the overall distribution. We can observe a significant

³More details on the CEO Awards used in this study and the matching procedure are provided in Appendix D.

spike in the distribution of M&A announcements around 2000, 2004 and between 2009-2010. Especially in 2000, 2009 and 2010 they represented over 10% of all completed M&A's.

Figure 4.1: Number of M&A's for S&P 1500 firms from 1996-2013



Panel B of Table 4.1 shows the distribution of completed M&A deals across

industries. Industries are defined according to the 12 Fama-French industry classifications (Fama and French, 1997). Finance, Business Equipment and Manufacturing are the most active industries in our sample. Approximately 55% of all M&A's in our sample are completed by firms in one of these three industries. A similar pattern emerges for deals with award-winning outside directors. A little under 60% of all completed M&A's take place in the Finance, Business Equipment and Manufacturing industry. Moreover, 15% of acquisitions in the Chemical products industry are carried out by firms with award-winning CEOs on the board of directors. This number is more than twice as large as the average representation across industries. The following analysis will include both year and industry fixed-effects to control for industry and year patterns affecting M&A activity.

Table 4.2 reports descriptive statistics. More details on the variable definitions are provided in the Appendix C. The table reports mean values for all acquirer firms in column (1), those firm's with CEO award-winners as outside directors in column (2) and those without CEO award winners (all other deals) in column (3). In column (4) we report the difference between column (2) and column (3).

Overall, acquirer firms with award-winning CEOs as outside directors are much larger in terms of total assets, have higher ROA, larger boards, a higher fraction of outside directors and better governance. Moreover, completed deals are smaller in relative size, need more time to be completed and are more likely to be tender offers. Finally, firms with CEO award winners are more likely to acquire a public target and significantly less likely to acquire a private target.

4.4 Results

4.4.1 M&A completion

In this section, we examine M&A frequency. We regress the total number of M&A's that a firm has completed on two different specifications of our variable of interest and several control variables including board characteristics, financial performance

Table 4.1: M&A sample distribution by announcement year

This table presents the sample distribution of 3,157 completed mergers and acquisitions. The sample contains all completed U.S. mergers and acquisitions from SDC for all firms included in the *RiskMetrics* database from 1996-2013. Included are mergers and acquisitions where the publicly traded acquiring firm gains control of a public, private or subsidiary target whose transaction value is at least \$1 million and 1% of the acquirer's market value. Panel A and Panel B present the number and percentage of M&A transactions by announcement year and by acquirer industry classification. The full sample is presented first, followed by a subsample based on the presence of an award-winning outside director being present on the firm's board and all other deals.

Panel A: By announcement year

Year	Full Sample	Award-winning Outside Directors		All Other Deals	
		Number	Percentage	Number	Percentage
1996	91	5	0.05	86	0.95
1997	188	14	0.07	174	0.93
1998	248	9	0.04	239	0.96
1999	226	22	0.10	204	0.90
2000	217	29	0.13	188	0.87
2001	194	18	0.09	176	0.91
2002	184	13	0.05	171	0.95
2003	182	11	0.07	171	0.93
2004	198	16	0.08	182	0.92
2005	189	10	0.05	179	0.95
2006	178	12	0.07	166	0.93
2007	195	12	0.05	183	0.95
2008	162	11	0.07	151	0.93
2009	100	12	0.12	88	0.88
2010	162	18	0.11	144	0.89
2011	165	9	0.05	156	0.95
2012	171	8	0.05	163	0.95
2013	107	7	0.07	100	0.93
Total	3157	236	0.07	2921	0.93

Panel B: By acquirer industry

Industry Classifications	Full Sample	Award-winning Outside Directors		All Other Deals	
		Number	Percentage	Number	Percentage
12 Fama-French					
Consumer nondurables	168	13	0.08	155	0.92
Consumer durables	73	5	0.07	68	0.93
Manufacturing	380	30	0.08	350	0.92
Energy	165	14	0.08	151	0.92
Chemical products	61	9	0.15	52	0.85
Business equipment	835	76	0.09	759	0.91
Telecom	71	4	0.06	67	0.94
Utilities	93	6	0.06	87	0.94
Wholesale and retail	202	13	0.06	189	0.94
Healthcare	286	19	0.07	267	0.93
Finance	528	34	0.06	494	0.94
Other	295	13	0.04	282	0.96
Total	3157	236	0.07	2921	0.93

Table 4.2: Descriptive statistics

This table presents descriptive statistics for 3,157 completed mergers and acquisitions. The sample contains all completed U.S. mergers and acquisitions from SDC for all firms included in the *RiskMetrics* database from 1996-2013. Included are mergers and acquisitions where the publicly traded acquiring firm gains control of a public, private or subsidiary target whose transaction value is at least \$1 million and 1% of the acquirer's market value. The sample means are presented in column (1), means for acquirer firm's with award-winning CEOs as outside directors are in column (2) and descriptives for all other acquirer's are in column (3). Column (4) reports the difference between column (2) and column (3). Variable definitions can be found in Appendix C. *t* - statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Full Sample	Award-winning Outside Directors	All Other Deals	(2)-(3)
	(1)	(2)	(3)	(4)
<i>Acquirer characteristics:</i>				
Assets (\$M)	8,600	46,291	5,552	40,738***
Tobin's Q	1.97	2.18	1.95	0.22
ROA	0.12	0.12	0.14	0.02***
Cash-to-assets	0.14	0.12	0.14	-0.02
Debt-to-assets	0.23	0.21	0.23	0.02
Board Size	9.03	10.67	8.90	1.78***
Fraction Outside Directors	0.68	0.76	0.68	0.07***
Entrenchment Index	2.21	2.02	2.23	0.21**
<i>Deal characteristics:</i>				
Deal value (\$M)	708	2,240	585	1,655***
Relative deal size	0.59	0.23	0.62	-0.39
Cash only	0.37	0.39	0.36	0.00
Percentage cash	0.49	0.48	0.49	0.01
Equity only	0.13	0.18	0.12	0.06*
Diversifying	0.39	0.36	0.40	-0.04
Negotiation time	64.70	80.29	63.44	16.85***
Tender offer	0.04	0.09	0.04	0.05***
Hostile	0.00	0.01	0.00	0.01*
Public target	0.24	0.37	0.23	0.15***
Private target	0.45	0.34	0.46	-0.12***
Subsidy target	0.32	0.29	0.32	0.03

and financial structure. First, we use the total number of award-winning CEOs serving on a firm's board and in a second specification we use an indicator variable equal to 1 if the firm has at least one award-winning CEO on its board of directors. In Panel A of Table 4.3, we regress the total number of M&A's completed by each firm on the average values of all control variables for the whole sample period.

We find that the coefficients on both measures of award-winning CEOs are negative and highly significant. The results indicate that, as the number of award-winning CEOs on the board increases, the number of M&A's a firm completes decreases. Our results are statistically and economically significant. If a firm has an award-winning CEO on its board of directors, the number of completed M&A's goes down by 0.87. Further, we find that firms that, on average, have larger boards and higher levels of cash-to-assets complete fewer M&A's. Most noteworthy, we find that the negative coefficients on our variable of interest are in stark contrast to the coefficient on firm size.

In Panel B of Table 4.3 we use the cumulative number of M&A's as the dependent variable. Using the cumulative number we are able to account for a firm's M&A activity in a given year while also taking into account the firm's past M&A activity. Our results are quantitatively similar to those reported in Panel A and confirm the negative association between the number of completed M&A's and the presence of award-winning CEOs on the board of directors. An increase in ROA and cash-to-assets is associated with a decrease in the number of completed M&A's and consistent with our previous result showing that firm size is positively related to the number of completed acquisitions.

Table 4.3: M&A completion

This table reports the OLS regression results with the total number of completed M&A's in Panel A and the cumulated number of M&A's in Panel B. *Award-winning outside directors* is the number of outside directors who are former or current CEOs and have won a CEO award. We use the total number of award-winning outside directors that serve as outside directors and a dummy variable equal to 1 if the firm has at least one CEO award winner on its board. *Board size* is the number of directors on the board. *Fraction outside directors* is the ratio of outside directors to board size. *ROA* is operating income before depreciation over total assets. *Cash-to-assets* is cash to lagged assets. *Debt-to-assets* is short-term and long-term debt over total assets. $\ln(\text{Assets})$ is the natural logarithm of the firm's total assets. Intercept is included in all regressions but not reported. t - statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A	Total Number of M&A's	
	(1)	(2)
Average award-winning outside directors (Number)	-0.340*** (-2.85)	
Average award-winning outside directors (Dummy)		-0.871*** (-5.11)
Average LN(Board size)	-0.586*** (-2.61)	-0.594*** (-2.65)
Average fraction outside directors	-0.253 (-0.80)	-0.220 (-0.70)
Average ROA	0.369 (0.64)	0.431 (0.75)
Average Cash-to-assets	-0.888** (-2.35)	-0.895** (-2.39)
Average Debt-to-assets	0.487 (1.52)	0.478 (1.49)
Average LN(Assets)	0.198*** (4.02)	0.219*** (4.58)
Industry FE	Yes	Yes
Observations	1310	1310
R^2	0.094	0.101
Panel B	Cumulative Number of M&A's	
	(1)	(2)
Award-winning outside directors (Number)	-0.434*** (-4.85)	
Award-winning outside directors (Dummy)		-0.453*** (-3.47)
LN(Board size)	-0.205 (-1.64)	-0.223* (-1.78)
Fraction outside directors	-0.316* (-1.70)	-0.330* (-1.78)
ROA	-0.964*** (-2.71)	-0.990*** (-2.79)
Cash-to-assets	-0.996*** (-4.55)	-1.008*** (-4.59)
Debt-to-assets	0.295 (1.48)	0.300 (1.50)
LN(Assets)	0.275*** (9.07)	0.266*** (8.77)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Observations	3138	3138
R^2	0.205	0.204

We have previously shown that award-winning CEOs sit on the board of the largest 10% of S&P 1500 firms. Large acquisitions aimed at large public targets have been shown to be specifically value-destroying (Henry and Jespersen, 2002; Cools et al., 2007; Moeller et al., 2004). Our findings could thus suggest that award-winning CEOs can be valuable to shareholders of extremely large firm by reducing

the probability or number of large and value-destroying acquisitions.

4.4.2 Diversifying acquisitions

Next, we evaluate the role of CEO award winners in respect to diversifying acquisitions. We use a logistic regression model where the dependent variable is a binary variable that is equal to one if a firm made a diversifying acquisition and zero otherwise. Diversifying bids are identified using the 48 Fama-French industry groups. The results are presented in Table 4.4.

Diversifying bids are viewed especially critically by shareholders and are more likely to destroy shareholder wealth (Morck et al., 1990; Malmendier and Tate, 2008). Like Malmendier and Tate (2008) we use diversification as a proxy for deal quality. Controlling for board characteristics, financial performance and financial structure of the acquiring firm, we find some evidence that firms with award-winning CEOs as outside directors are less likely to complete diversifying acquisitions. The results of Moeller et al. (2004) suggest that large firms are generally less likely to diversify. However, firm size, measured as the natural logarithm of total assets, is not a significant predictor of diversification. A possible explanation may be that the average firm size in our sample is considerably larger than the average firm in Moeller et al. (2004). Indeed, the average firm in our sample is approximately \$9.6 billion and whereas the average firm size in Moeller et al. (2004) is just \$2.6 billion.

Overall, our results indicate that award-winning CEOs can potentially decrease the number of value-destroying deals and prevent firms from engaging in diversifying acquisitions.

4.4.3 M&A performance

4.4.3.1 Announcement returns

In this section, we study investor reactions to acquisition announcements. We calculate announcement period abnormal returns following the standard methodology outlined in Brown and Warner (1985). We estimate these abnormal returns over the

Table 4.4: Diversifying Acquisitions

This table reports logit regression results where the dependent variable is a binary variable that is equal to 1 if the firm made a diversifying merger or acquisition in a given year. Diversification is measured using the 48 Fama-French industry classifications. *Award-winning outside directors* is the number of outside directors who are former or current CEOs and have won a CEO award. We use the total number of award-winning outside directors that serve as outside directors and a dummy variable equal to 1 if the firms has at least one CEO award winner on its board. *Board size* is the number of directors on the board. *Fraction outside directors* is the ratio of outside directors to board size. *ROA* is operating income before depreciation over total assets. *Cash-to-assets* is cash to lagged assets. *Debt-to-assets* is short-term and long-term debt over total assets. *Ln(Assets)* is the natural logarithm of the firm's total assets. Intercept is included in all regressions but not reported. *t* - statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Diversifying Acquisitions	
	(1)	(2)
Award-winning outside directors (Number)	-0.204*	
	(-1.76)	
Award-winning outside directors (Dummy)		-0.261*
		(-1.65)
LN(Board size)	0.381*	0.380*
	(1.91)	(1.91)
Fraction outside directors	0.317	0.326
	(1.05)	(1.08)
ROA	0.151	0.164
	(0.25)	(0.27)
Cash-to-assets	-0.246	-0.250
	(-0.76)	(-0.77)
Debt-to-assets	0.135	0.129
	(0.42)	(0.40)
LN(Assets)	-0.0593	-0.0553
	(-1.38)	(-1.29)
Industry FE	Yes	Yes
Year FE	Yes	Yes
Observations	3088	3088
Pseudo R^2	0.184	0.184

Table 4.5: Cumulative abnormal returns around acquisition announcements

This table presents mean and median cumulative abnormal returns (CARs) upon acquisition announcements by the acquiring firm. We report CARs over the three-day event window $[-1,1]$, five-day event window $[-2,2]$, and eleven-day event window $[-5,5]$. Numbers for the full sample are reported first, followed by deals completed by firms with at least one award-winning outside director and all other deals. Finally, we report differences between column (3) and column (5) and report the results from a t-test and Wilcoxon test in column (7) and (8). ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Full Sample		Award-winning Outside Directors		All Other Deals		Difference (3)-(5)	
	Mean (Median)	Standard Deviation	Mean (Median)	Standard Deviation	Mean (Median)	Standard Deviation	t-Value (t-test)	z-Value (Wilcoxon test)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR $[-1,1]$	0.32% (0.17%)	0.064	-0.52% (-0.22%)	0.052	0.39% (0.20%)	0.065	2.04**	2.18**
CAR $[-2,2]$	0.33% (0.25%)	0.072	-0.81% (-0.25%)	0.058	0.43% (0.32%)	0.073	2.46**	2.50**
CAR $[-5,5]$	0.15% (0.22)	0.093	-1.01% (-0.35%)	0.087	0.25% (0.27)	0.093	1.95*	2.03**

three-day $(-1,+1)$, five-day $(-2,+2)$ and eleven-day $(-5,+5)$ event window using the CRSP value-weighted index as the market return and estimate the market model for the $(-205,-6)$ interval.

We examine the announcement returns in Table 4.5. We report mean, median and the standard deviation of the announcement returns over the three event windows $(-1,+1)$, $(-2,+2)$ and $(-5,+5)$ in Table 4.5. Results for all acquisitions are reported in column (1) and (2), deals completed by firms with award-winning outside directors are presented in column (3) and (4), deals completed by firms without award-winning outside directors in column (5) and (6) and two test of statistical differences in the means in column (7) and (8).

The announcement returns for all S&P 1500 firms from 1996-2013 are positive across all event windows. Announcement returns for firms with award-winning outside directors, on the other hand, are negative. The effect becomes more pronounced as the size of the event window increases. For the eleven-day $(-5,+5)$ event window the average announcement return is -1.01%. The differences compared to all other deals across the event windows range from 0.96% for the three-day $(-1,+1)$ event window to 1.26% for the eleven-day $(-5,+5)$ window and are statistically significant. Our univariate results do not lend support to the notion that firms with CEO award winners as outside directors make better acquisitions.

Next, we report announcement returns across different deal characteristics. We compare different types of acquisitions, target firms, payment methods and relative deal size. Except for all equity payments, announcement returns for firms with award-winning CEOs as outside directors are more negative compared to those of all other firms. However, the effect is only significant for diversifying acquisitions and those acquisitions paid using a mix of cash and equity. The effect is strongest for acquisitions with a relative deal size of more than 25%. The difference in announcement returns is 2.40%.

Having established significant differences in our univariate results, we now evaluate the role of CEO award winners in a formal regression model. The results are presented in Table 4.7. We find some evidence that suggests that firms with award-winning outside directors experience significantly more negative announcement returns. However, the significance disappears upon the inclusion of standard control variables. Overall, the findings suggest that firm size is the only consistent negative predictor of announcement returns (Moeller et al., 2004)⁴.

4.4.3.2 Abnormal dollar returns

The literature mostly focusses on percentage returns to acquisition announcements. This approach does not capture the change in wealth for acquiring firm shareholders. Percentage returns do not reflect the size of the acquiring firm and thus fail to accurately reflect the change in wealth experienced by shareholders (Malatesta, 1983). Moeller et al. (2004) and Moeller et al. (2005) show that there is a significant size effect in the percentage and dollar returns to acquisitions. We use abnormal dollar returns to capture the change in wealth experienced by shareholders. Abnormal dollar returns are defined as the gross change in the value of the acquirer's equity minus the predicted change from the market model. Dollar returns are expressed in 2005 dollars. We present two sets of results. An overview including transaction

⁴We observe relatively low coefficients of determination. However, the size of the observed coefficients is not unusual in regression models employing CARs as the dependent variable. See, for example, (Masulis et al., 2007).

Table 4.6: Cumulative abnormal returns and deal characteristics

This table presents cumulative abnormal returns upon acquisitions announcement by the acquiring firm. CARs are calculated over the three-day event window $[-1,+1]$ using the market model. CARs are reported according to acquisition type, target type, payment method and relative deal size. Diversification is measured using the 48 Fama-French industry classifications. Observations and CARs for the full sample are reported in column (1) and (2), for award-winning outside directors in column (3) and (4) and for all other deals in column (5) and (6). A test for differences between column (4) and column (6) and the respective t-statistic are reported in column (7). ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Full Sample		Award-winning Outside Directors		All Other Deals		Difference (4)-(6)
	Obs. (1)	CAR (2)	Obs. (3)	CAR (4)	Obs. (5)	CAR (6)	
<i>Acquisition type</i>							
Within	1825	0.35%	145	-0.24%	1680	0.41%	-0.65%
Diversifying	1183	0.27%	81	-1.01%	1102	0.37%	-1.38%***
<i>Target type</i>							
Public	694	-1.39%	79	-1.62%	615	-1.36%	-0.26%
Private	1337	0.54%	79	-0.14%	1258	.058%	-0.72%
Subsidiary	956	1.26%	66	0.34%	890	1.33%	-0.99%
<i>Payment method</i>							
Cash	1116	0.86%	87	0.24%	1029	0.92%	-0.67%
Equity	375	-1.63%	41	-1.15%	334	-1.69%	0.54%
Mixed	1496	0.41%	96	-0.95%	1400	0.50%	-1.45%***
<i>Relative deal size</i>							
Less than 5%	1391	0.39%	128	-0.37%	1263	0.47%	-0.84%
5%-25%	1066	0.31%	70	-0.20%	996	0.35%	-0.56%
More than 25%	530	0.15%	26	-2.13%	504	0.27%	-2.40%

Table 4.7: Determinants of Acquirer Returns

This table reports results of OLS regressions for acquirer cumulative abnormal returns. The dependent variable is the three-day $[-1,1]$ cumulative abnormal return for the acquirer. *Award-winning outside directors* is the number of outside directors who are former or current CEOs and have won a CEO award. We use the total number of award-winning outside directors that serve as outside directors and a dummy variable equal to 1 if the firms has at least one CEO award winner on its board. *Board size* is the number of directors on the board. *Fraction outside directors* is the ratio of outside directors to board size. *Diversifying* is an indicator variable equal to 1 if the acquirer and target are not in the same industry. Industries are classified according to the Fama-French 48 industry classification. *Tender offer* indicates a tender offer. *Hostile* is an indicator variable equal to 1 if the bid was hostile. *Cash deal* is an indicator variable equal to 1 if the bid was fully financed with cash. *Relative deal value* is the deal value divided by the acquirer's market value of equity. *ROA* is operating income before depreciation over total assets. *Cash-to-assets* is cash to lagged assets. *Debt-to-assets* is short-term and long-term debt over total assets. *Ln(Assets)* is the natural logarithm of the firm's total assets. Intercept is included in all regressions but not reported. *t* - statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	CAR[-1,1]					
	(1)	(2)	(3)	(4)	(5)	(6)
Award-winning outside directors (Number)	-0.452*		-0.251		-0.121	
	(-1.70)		(-0.91)		(-0.42)	
Award-winning outside directors (Dummy)		-0.730*		-0.474		-0.348
		(-1.93)		(-1.20)		(-0.85)
LN(Board size)			-0.978*	-0.959*	-0.675	-0.670
			(-1.94)	(-1.91)	(-1.23)	(-1.22)
Fraction outside directors			-0.763	-0.737	-0.580	-0.555
			(-0.88)	(-0.85)	(-0.67)	(-0.64)
Diversifying			-0.151	-0.155	-0.175	-0.178
			(-0.55)	(-0.57)	(-0.64)	(-0.65)
Tender offer			-0.338	-0.328	-0.332	-0.329
			(-0.55)	(-0.53)	(-0.54)	(-0.53)
Hostile			-2.114	-2.035	-1.973	-1.908
			(-1.16)	(-1.13)	(-1.07)	(-1.05)
Relative deal value			-0.00403	-0.00412	-0.00373	-0.00385
			(-0.43)	(-0.44)	(-0.38)	(-0.39)
ROA					2.798	2.843
					(1.46)	(1.48)
Cash-to-assets					-1.709	-1.713
					(-1.61)	(-1.61)
Debt-to-assets					1.597*	1.583*
					(1.75)	(1.73)
LN(Assets)					-0.244**	-0.233**
					(-2.24)	(-2.14)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2987	2987	2956	2956	2949	2949
R^2	0.029	0.029	0.031	0.031	0.036	0.036

values, abnormal dollar returns and announcement returns in Table 4.8 and large loss deals with losses greater than \$1 billion in Table 4.9.

We find that between 1996-2013 S&P 1500 firms spent \$2.24 trillion on mergers and acquisitions and accumulated losses of \$63 billion. While the positive overall announcement returns implies that firms created value, the dollar losses accumulated are significant. Finding positive announcement returns but negative abnormal dollar returns suggests the existence of a size effect among S&P 1500 firms (Moeller et al., 2004).

The positive announcement return and negative abnormal dollar returns are evidence that the size effect persists over time and can be observed for S&P 1500 firms (Moeller et al., 2004). Large firms tend to perform considerably worse during acquisitions and cause the major share of the dollar loss associated with all mergers and acquisitions. The average firm in our sample loses \$20 million in market value upon the announcement of an acquisition. Firms with award-winning outside directors on the other hand lose 9 times more, equivalent to a loss of \$183 million per acquisition. This is especially striking compared to all other firms in the sample who, on average, lose just \$6 million.

In line with our earlier results, firms with award-winning outside directors perform considerably worse in respect to acquisitions. Acquisitions with award-winning outside directors make up 7% of all acquisitions but 24% of the aggregate transaction value and 68% of all losses incurred through acquisitions. However, almost 50% of those losses were accumulated between 2000 and 2001.

Next, we examine deals that caused losses equal or greater than \$1 billion. While a third of these so-called large loss deals occurred between 2000 and 2001, the number of large loss deals completed by firms with award-winning outside directors is more evenly spread across the sample period. Despite only representing 7% of the total M&As sample, they are involved in 45% of all deals associated with losses greater or equal to \$1 billion.

Table 4.8: Distribution of aggregate transaction values, abnormal dollar returns and announcement returns

This table presents the number, the aggregate transaction value, abnormal dollar return and cumulative abnormal return of the 3,157 completed acquisitions. The sample contains all completed U.S. mergers and acquisitions from SDC for all firms included in the *RiskMetrics* database from 1996-2013. Included are mergers and acquisitions where the publicly traded acquiring firm gains control of a public, private or subsidiary target whose transaction value is at least \$1 million and 1% of the acquirer's market value. Reported are the number of acquisitions per year, the aggregate transaction value, the abnormal dollar return and the cumulative abnormal return. Abnormal dollar returns are defined as the gross change in the value of the acquirer's equity minus the predicted change from the market model. Dollar returns are expressed in 2005 dollars. Cumulative abnormal returns are calculated over the three-day [-1,+1] event window using the market model.

Year	Full Sample				Award-winning Outside Directors				All Other Deals			
	Number	Aggregate Transaction Value	Abnormal Dollar Return	CAR	Number	Aggregate Transaction Value	Abnormal Dollar Return	CAR	Number	Aggregate Transaction Value	Abnormal Dollar Return	CAR
1996	91	27,836	-465	0.22%	5	1,979	125	2.37%	86	25,866	-589	0.09%
1997	188	53,624	-4,070	0.17%	14	3,203	-199	-0.83%	174	50,421	-3,871	0.25%
1998	248	212,740	-5,027	0.39%	9	12,669	-861	0.62%	239	200,071	-4165	0.38%
1999	226	275,156	-2,444	0.80%	22	90,055	-3,884	0.17%	204	185,101	1,440	0.88%
2000	217	236,351	-15,700	-1.02%	29	36,863	4,645	-2.08%	188	199,488	-20,345	-0.85%
2001	194	103,036	-14,153	-0.52%	18	47,157	-4,186	-0.31%	176	55,879	-9,966	-0.55%
2002	184	55,059	-2,015	0.43%	13	22,606	-6,309	-4.30%	171	32,452	4,294	0.80%
2003	182	103,078	-8,754	0.19%	11	10,624	-6,881	-0.64%	171	92,454	-1,872	0.24%
2004	198	152,684	-7,629	0.14%	16	66,136	-3,856	-0.53%	182	86,547	-3,772	0.19%
2005	189	132,969	-2,546	0.88%	10	41,211	-7,836	1.81%	179	91,759	5,290	0.82%
2006	178	118,239	-3,320	-0.12%	12	7,227	357	0.13%	166	111,012	-3,677	-0.13%
2007	195	119,615	-8,968	0.13%	12	24,510	-3,286	0.74%	183	95,105	-5,682	0.10%
2008	162	111,645	1,856	0.25%	11	35,411	-768	-1.12%	151	76,203	2,625	0.35%
2009	100	117,143	-2,117	0.49%	12	69,967	-4,948	-0.95%	88	47,178	2,832	0.69%
2010	162	142,882	5,477	0.87%	18	43,124	-743	-0.02%	144	99,757	6,219	0.99%
2011	165	91,739	2,849	0.17%	9	3136	1,165	0.35%	156	88,603	1,683	1.34%
2012	171	108,107	6,618	1.34%	8	1,345	-38	-0.36%	163	106,762	6,658	1.38%
2013	107	74,630	-2,731	1.99%	7	11,288	-5668	-1.66%	100	63,342	2,936	2.14%
Total	3,157	2,236,533	-63,136	0.32%	236	528,535	-43,173	-0.52%	2921	1,707,998	-19,964	0.39%

Our results show that firms with award-winning CEOs as outside directors do not outperform other firms, but instead they are responsible for a large share of the overall losses incurred through M&As. The results indicate that firms, irrespective of directors with managerial experience and expertise, destroy shareholder wealth through M&A activity.

4.4.3.3 M&A long-term performance

We find no evidence suggesting that firms with award-winning outside directors on the board are able to make better acquisition decisions. If anything, abnormal dollar returns and the distribution of large loss deals suggest that award-winning outside directors are associated with particularly value-destroying M&As. However, it might be the case that investors simply fail to realize or misjudge the potential of the proposed acquisition. To address this concern, we evaluate the long-term consequences of M&As.

For long-term stock return performance analysis, we investigate three year stock return performance in the post-event period starting from the effective date of a completed deal (Mitchell and Stafford, 2000). To evaluate M&A long-term performance we use a calendar-time approach. Using this approach we calculate monthly calendar-time portfolio returns for firms that complete M&A's. Then, we calculate the monthly abnormal return by estimating the intercept of the calendar-time portfolio using the Fama and French (1993) three factor model.

$$AR_{it} = R_{it} - R_{ft} - \beta_{i1}(R_{mt} - R_{ft}) - \beta_{i2}HML_t + \beta_{i3}SMB_t \quad (4.2)$$

where AR_{it} or Alpha is the monthly abnormal return of the calendar-time portfolio. HML_t and SMB_t are the Fama-French book-to-market and size factor. Among others, Fama (1998) points out that this methodology has a few distinct advantages over approaches such as “buy-and-hold abnormal return” to evaluate long-term performance. Portfolios with monthly calendar-time returns take into account all cross-correlations across event firms and the distribution of calendar-time monthly returns also provides a better approximation of the normal distribution.

Table 4.9: Large loss deals

This table presents the distribution of aggregate transaction value and large loss deals for all M&A's in our sample. The sample contains all completed U.S. mergers and acquisitions from SDC for all firms included in the *RiskMetrics* database from 1996-2013. Included are mergers and acquisitions where the publicly traded acquiring firm gains control of a public, private or subsidiary target whose transaction value is at least \$1 million and 1% of the acquirer's market value. Large loss deals are deals associated with losses greater or equal to \$1 billion. Reported are the distribution for firms with award-winning outside directors and all other deals.

Year	Large Loss Deals	Award-winning				All Other Deals			
		Outside Directors							
		Number	Aggregate Transaction Value	Aggregate Dollar Return	Number	Transaction Value	Abnormal Transaction Value	Abnormal Dollar Return	
1996	0	0	0	0	0	0	0	0	
1997	1	0	0	0	1	576	576	-2,234	
1998	5	1	379	-1,007	4	3,050	3,050	-6,571	
1999	5	3	45,591	-17,613	2	19,536	19,536	-3,310	
2000	13	3	558	-11,187	10	10,291	10,291	-30,243	
2001	7	3	10,571	-5,036	4	1,142	1,142	-5,569	
2002	2	2	6,939	-4,865	0	0	0	0	
2003	3	2	8,269	-6,660	1	6,958	6,958	-3,127	
2004	3	2	3,856	-3,233	1	4,807	4,807	-1,044	
2005	2	1	0	0	1	4,712	4,712	-1,017	
2006	1	0	37,593	-9,506	1	1,745	1,745	-1,171	
2007	5	2	12,834	-5,541	3	13,559	13,559	-6,151	
2008	3	2	15,079	-12,971	1	865	865	-1,541	
2009	5	3	22,748	-7,686	2	10,719	10,719	-2,518	
2010	1	1	2,158	-3,773	0	0	0	0	
2011	0	0	0	0	0	0	0	0	
2012	0	0	0	0	0	0	0	0	
2013	4	2	6,811	-5,423	2	3,581	3,581	-3,259	
Total	60	27	173,384	-94,500	33	81,541	81,541	-67,755	

The results are presented in Table 4.10. The results are based on the Fama-French three factor model using value-weighted monthly portfolio returns of acquiring firms. The results are computed using the weighted least square technique. We present three different sets of results. Regression results for all cases are presented in Panel A, non-overlapping cases in Panel B and overlapping cases in Panel C. Cases are considered “overlapping” if a firm makes an acquisition within three years of a previous acquisition.

Several earlier studies based on US data have reported that acquiring firms experience significant negative abnormal returns over a one to three year period following an acquisition (Agrawal et al., 1992; Moeller et al., 2003). However, Fama (1998) and Mitchell and Stafford (2000) point to methodological issues surrounding these conclusions. Methodological choices and various deal characteristics may explain the negative long-term performance following acquisitions. Consistent with these concerns, Dutta and Jog (2009) use a more robust methodology and find no signs of M&A underperformance for a sample of Canadian acquisitions.

Similarly, we find no evidence of a significant underperformance. The alpha (or intercept) is slightly negative and insignificant across all subsamples. The coefficients on SMB and HML are positive and significant. A positive coefficient on SMB implies that the average size of acquiring firms in the portfolio is quite small. A significant positive coefficient on HML indicates that most of the firms in the portfolio are value firms with lower price-to-book ratios.

4.4.4 Deal characteristics

Having analyzed the frequency and performance of M&A’s, we now focus on deal characteristics that have been specifically linked to acquisition outcomes.

4.4.4.1 Deal value

We begin our analysis by looking at the total and relative deal size. Table 4.11 presents OLS regression models with the natural logarithm of total deal value and

Table 4.10: Long-term M&A performance: Fama-French 3-Factor Regression

This table reports results from Fama-French (FF) three factor regressions to detect abnormal returns. RMRF is the difference between monthly stock return portfolio and 91-day T-bill rate. SMB is the difference between the returns of small size firm portfolios and large size firm portfolios. HML is the difference between the returns of value firm portfolios and growth firm portfolios. We use the weighted least square (WLS) technique in the value-weight portfolio analysis, in which the square root of the number of firms in each month is used as the weight in the regression model. The reported results are based on the 36 months following an acquisition. The “Alpha” value reported in the regression model indicates the monthly average abnormal return of the sample. Panel A present results for all cases (N=3,157). Panels B and C present results for “non-overlapping” (N=1,744) and “overlapping” (N=1,413) cases. If a firm makes an acquisition within three years of a previous acquisition, the cases are considered “overlapping”. *t* – statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Factors				Model Characteristics	
	Alpha	RMRF	SMB	HML	Adj. R^2	F-stat
<i>Panel A: All cases</i>						
All bids (N=3157)	-0.0000 (-0.02)	1.1589*** (39.08)	0.3688*** (9.36)	0.4511*** (10.97)	0.8851	609.26***
Award-winning outside directors (N=236)	0.0004 (0.21)	1.1694*** (29.61)	0.1631** (3.08)	0.2984*** (5.46)	0.8054	322.45***
No award-winning outside directors (N=2921)	-0.0000 (-0.09)	1.1578*** (38.50)	0.3861*** (9.66)	0.4644*** (11.13)	0.8828	596.28***
<i>Panel B: Non-overlapping cases</i>						
All bids (N=1744)	-0.0002 (-0.15)	1.1768*** (40.36)	0.3890*** (10.19)	0.4547*** (11.24)	0.8909	646.02***
Award-winning outside directors (N=144)	-0.0005 (-0.29)	1.1912*** (30.09)	0.1863*** (3.56)	0.2880*** (5.29)	0.8117	335.82***
No award-winning outside directors (N=1600)	-0.0001 (-0.10)	1.1757*** (39.49)	0.4076*** (10.47)	0.4706*** (11.38)	0.8873	623.24***
<i>Panel C: Overlapping cases</i>						
All bids (N=1413)	0.0003 (0.21)	1.1766*** (33.97)	0.3545*** (7.76)	0.4526*** (9.56)	0.8540	459.24***
Award-winning outside directors (N=92)	0.0018 (0.65)	1.1377*** (19.14)	0.1212* (1.49)	0.3155 (3.80)	0.6365	132.89***
No award-winning outside directors (N=1,321)	0.0002 (0.10)	1.1360*** (34.13)	0.3581*** (7.95)	0.4606*** (9.98)	0.8581	474.74***

the relative deal value as dependent variables. The relative deal size is the ratio of the target's equity capitalization to the acquirer's equity capitalization. We regress our dependent variables on board characteristics, deal characteristics, financial performance and financial structure variables. As before we use the number of award-winning outside directors and an indicator variable equal to 1 if a firm has at least one award-winning outside director on its board as our variable of interest. We find that firms with award-winning outside directors complete significantly larger mergers and acquisitions. Hostile deals are significantly larger and deals paid for using only cash are significantly smaller. Overall, firm size, ROA and cash-to-assets are positively associated with total deal size. Somewhat surprisingly, none of our variables have any predictive power in relation to the relative deal size.

It is known that large deals are particularly value-destroying (Henry and Jespersen, 2002; Cools et al., 2007). Alexandridis et al. (2013) show that the result cannot be explained by larger premia paid for larger targets. Rather they show that large targets are acquired at a significant discount. The authors argue that the complexities involved in relatively larger deals and difficulties around post-merger integration can hinder the realization of potential merger gains (Shrivastava, 1986; Hayward, 2002; Ahern, 2010).

4.4.4.2 Negotiation time

In this section, we examine the M&A negotiation time and test whether the time needed to complete a deal is affected by the number of award-winning outside directors on the board of directors. Renneboog and Zhao (2014), for example, show that firms can benefit from director connections between target and bidder firm. They argue that director connections can facilitate information exchange and help reduce the time needed to complete M&A's.

We use a (left censored) tobit model with the negotiation time as the dependent variable. Negotiation time is the number of days between the first public M&A

Table 4.11: Deal Value

This table presents OLS regression results with the natural logarithm of the total deal dollar value and the relative deal value as dependent variables. *Award-winning outside directors* is the number of outside directors who are former or current CEOs and have won a CEO award. We use the total number of award-winning outside directors that serve as outside directors and a dummy variable equal to 1 if the firms has at least one CEO award winner on its board. *Board size* is the number of directors on the board. *Fraction outside directors* is the ratio of outside directors to board size. *Diversifying* is an indicator variable equal to 1 if the acquirer and target are not in the same industry. Industries are classified according to the Fama-French 48 industry classification. *Tender offer* indicates a tender offer. *Hostile* is an indicator variable equal to 1 if the bid was hostile. *Cash deal* is an indicator variable equal to 1 if the bid was fully financed with cash. *Relative deal value* is the deal value divided by the acquirer's market value of equity. *ROA* is operating income before depreciation over total assets. *Cash-to-assets* is cash to lagged assets. *Debt-to-assets* is short-term and long-term debt over total assets. *Ln(Assets)* is the natural logarithm of the firm's total assets. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	LN(Dollar Deal Value)		Relative Deal Value	
	(1)	(2)	(3)	(4)
Award-winning outside directors (Number)	0.319*** (4.25)		-0.528 (-0.92)	
Award-winning outside directors (Dummy)		0.308*** (3.14)		-0.789 (-0.95)
LN(Board size)	-0.0970 (-0.83)	-0.0819 (-0.70)	0.510 (0.70)	0.498 (0.70)
Fraction outside directors	0.00275 (0.02)	0.0175 (0.10)	1.843 (1.08)	1.856 (1.08)
Diversifying	-0.0382 (-0.65)	-0.0375 (-0.64)	-0.349 (-1.27)	-0.353 (-1.26)
Tender offer	0.0735 (0.58)	0.0718 (0.57)		
Hostile	1.327** (2.02)	1.298** (1.98)	0.205 (0.29)	0.305 (0.46)
All cash	-0.166*** (-3.04)	-0.170*** (-3.12)	0.427 (0.96)	0.431 (0.96)
ROA	2.739*** (7.48)	2.766*** (7.53)	-2.858 (-1.37)	-2.836 (-1.37)
Cash-to-assets	0.766*** (3.95)	0.775*** (3.99)	-1.741 (-1.26)	-1.755 (-1.26)
Debt-to-assets	-0.133 (-0.74)	-0.138 (-0.76)	-1.266 (-1.05)	-1.276 (-1.05)
LN(Assets)	0.602*** (24.42)	0.610*** (24.67)	0.0341 (0.16)	0.0383 (0.17)
Industry FE				
Year FE				
Observations	3117	3117	3117	3117
R^2	0.302	0.300	0.022	0.022

announcement and the completion of the deal. Similar to our previous model, we control for board characteristics, deal characteristics, financial performance and financial structure variables. The results are presented in Table 4.12. We present two different sets of results. Controlling for year fixed-effects we find that, indeed, the negotiation period seems to be shorter for firms with award-winning outside directors. However, when we control for industry effects the significant association disappears. Our results indicate that negotiation times vary significantly across industries and that certain industries may require, on average, less time to complete acquisitions. All models have low coefficient of determination. However, the size of the observed coefficients are comparable to those observed by Renneboog and Zhao (2014). Regarding the control variables we find that diversifying and cash bids are associated with significantly shorter negotiation periods. Further, our results indicate that diversifying and cash deals need less time to be completed and that hostile bids, tender offers and firm size lead to an increase in negotiation time.

4.4.4.3 Payment method

In this section, we analyse the method of payment. The proposed payment method can have important implications for the short-term acquisition performance (Travlos, 1987; Chang, 1998; Fuller et al., 2002), and aggravate issues surrounding changes in corporate control and voting power (Faccio and Masulis, 2005).

We estimate a logit model with a binary dependent variable indicating the method of payment. First, we use an indicator variable equal to one for all deals involving cash (an all cash transaction or mixed payment) and zero in case of an all equity payment. Second, we use offers involving equity (in case of an equity or mixed payment the dummy equals one, and equals zero in case of an all cash offer).

Our results are presented in Table 4.13. We find some evidence that firms with award-winning outside directors are less likely to use an all cash or mixed cash bid to conclude deals. Being less likely to conclude deals in cash, which is generally

Table 4.12: Negotiation Time

This table reports the (left censored) tobit regression results of the negotiation time in M&A transactions. Negotiation time is the difference between the announcement date and the date the deal is completed. *Award-winning outside directors* is the number of outside directors who are former or current CEOs and have won a CEO award. We use the total number of award-winning outside directors that serve as outside directors and a dummy variable equal to 1 if the firms has at least one CEO award winner on its board. *Board size* is the number of directors on the board. *Fraction outside directors* is the ratio of outside directors to board size. *Diversifying* is an indicator variable equal to 1 if the acquirer and target are not in the same industry. Industries are classified according to the Fama-French 48 industry classification. *Tender offer* indicates a tender offer. *Hostile* is an indicator variable equal to 1 if the bid was hostile. *Cash deal* is an indicator variable equal to 1 if the bid was fully financed with cash. *Relative deal value* is the deal value divided by the acquirer's market value of equity. *ROA* is operating income before depreciation over total assets. *Cash-to-assets* is cash to lagged assets. *Debt-to-assets* is short-term and long-term debt over total assets. *Ln(Assets)* is the natural logarithm of the firm's total assets. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Negotiation Time			
	(1)	(2)	(3)	(4)
Award-winning Outside Directors (Number)	-7.582*	0.0270		
	(-1.92)	(0.01)		
Award-winning Outside Directors (Dummy)			-12.71*	-3.703
			(-1.94)	(-0.59)
LN(Board size)	31.52***	7.758	31.32***	7.949
	(4.45)	(1.07)	(4.42)	(1.10)
Fraction outside directors	7.736	-5.013	8.212	-4.511
	(0.67)	(-0.44)	(0.71)	(-0.39)
Diversifying	-33.38***	-26.82***	-33.43***	-26.85***
	(-9.55)	(-7.16)	(-9.56)	(-7.17)
Tender offer	23.42***	29.23***	23.62***	29.29***
	(3.36)	(4.47)	(3.39)	(4.47)
Hostile	140.8***	157.6***	142.2***	158.3***
	(3.03)	(3.45)	(3.07)	(3.46)
Cash deal	-16.83***	-14.55***	-16.75***	-14.59***
	(-4.68)	(-4.12)	(-4.66)	(-4.13)
Relative Deal Value	4.303**	2.212	4.283**	2.223
	(1.99)	(1.16)	(1.98)	(1.16)
ROA	-50.28**	-17.02	-49.57**	-16.08
	(-2.51)	(-0.79)	(-2.47)	(-0.74)
Cash-to-assets	-4.403	1.884	-4.372	1.902
	(-0.39)	(0.16)	(-0.39)	(0.16)
Debt-to-assets	-3.601	-7.888	-4.068	-8.155
	(-0.31)	(-0.65)	(-0.35)	(-0.68)
LN(Assets)	20.60***	15.99***	20.74***	16.23***
	(13.60)	(10.55)	(13.61)	(10.62)
Industry FE	No	Yes	No	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	3117	3117	3117	3117
Pseudo R^2	0.023	0.032	0.023	0.032

Table 4.13: Payment Type

This table presents the results of logit regressions on the type of means of payment in the transaction. The dependent variables are *Cash or Mixed* and *Equity or Mixed*. *Cash or Mixed* is an indicator variable equal to 1 if the deal was fully or partially financed with cash. *Equity or Mixed* is an indicator variable equal to 1 if the deal was fully or partially financed with equity. *Award-winning outside directors* is the number of outside directors who are former or current CEOs and have won a CEO award. We use the total number of award-winning outside directors that serve as outside directors and a dummy variable equal to 1 if the firms has at least one CEO award winner on its board. *Board size* is the number of directors on the board. *Fraction outside directors* is the ratio of outside directors to board size. *Diversifying* is an indicator variable equal to 1 if the acquirer and target are not in the same industry. Industries are classified according to the Fama-French 48 industry classification. *Tender offer* indicates a tender offer. *Hostile* is an indicator variable equal to 1 if the bid was hostile. *Cash deal* is an indicator variable equal to 1 if the bid was fully financed with cash. *Relative deal value* is the deal value divided by the acquirer's market value of equity. *ROA* is operating income before depreciation over total assets. *Cash-to-assets* is cash to lagged assets. *Debt-to-assets* is short-term and long-term debt over total assets. *Ln(Assets)* is the natural logarithm of the firm's total assets. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	All Cash or Mixed		All Equity or Mixed	
	(1)	(2)	(3)	(4)
Award-winning Outside Directors (Number)	-0.281** (-2.56)		0.0474 (0.34)	
Award-winning Outside Directors (Dummy)		-0.287* (-1.89)		0.0128 (0.07)
LN(Board size)	0.0880 (0.50)	0.0757 (0.43)	-0.177 (-0.84)	-0.175 (-0.83)
Fraction outside directors	0.334 (1.21)	0.324 (1.18)	-0.408 (-1.31)	-0.402 (-1.29)
Diversifying	0.152* (1.68)	0.152* (1.67)	-0.114 (-1.01)	-0.114 (-1.01)
Tender offer	1.371*** (6.50)	1.373*** (6.51)	-0.617** (-2.34)	-0.617** (-2.34)
Hostile	-1.127 (-1.30)	-1.100 (-1.26)	1.674** (2.16)	1.677** (2.16)
Relative Deal Value	0.0133 (0.25)	0.0125 (0.24)	0.0356 (0.63)	0.0360 (0.64)
ROA	0.488 (0.90)	0.470 (0.86)	-2.854*** (-4.29)	-2.842*** (-4.27)
Cash-to-assets	0.533* (1.78)	0.525* (1.76)	0.0707 (0.20)	0.0720 (0.21)
Debt-to-assets	-0.304 (-1.07)	-0.302 (-1.06)	-0.269 (-0.77)	-0.272 (-0.78)
LN(Assets)	0.0374 (0.98)	0.0313 (0.82)	0.0105 (0.22)	0.0137 (0.29)
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	3114	3114	3073	3073
Pseudo R^2	0.097	0.097	0.147	0.146

associated with positive announcement returns, is likely be a reflection of the large target size. Results on the use of equity reveal no significant relationship between award-winning directors and the method of payment. Moreover, the evidence suggests that tender offers are more often completed using cash. Moreover, higher levels of cash-to-assets are also linked to a higher likelihood to complete a transaction using only cash or a mix involving cash. In regard to all equity or mixed payments, we find a negative association with ROA and hostile takeover bids.

4.5 Conclusion

Several recent papers link acquisition outcomes to director characteristics and board structure (Masulis and Mobbs, 2011; Fahlenbrach et al., 2010; Francis et al., 2015; Huang et al., 2014; Ishii and Xuan, 2014; Renneboog and Zhao, 2014; Cai and Sevilir, 2012). The rationale is that CEO experience, industry expertise or social networks should allow the board to select better acquisition targets and improve acquisition outcomes. However, so far, the literature has failed to produce clear and consistent evidence.

We analyze the role of award-winning CEOs on corporate boards and examine whether they can improve acquisition outcomes. These so-called Superstar CEOs are highly demanded and particularly influential outside directors, as such they are well-suited for the purpose of this study.

At most, our results suggest that award-winning CEOs may indirectly affect merger outcomes by reducing the number of completed M&A's. However, there is no evidence that award-winning CEOs can help firms make better acquisitions. Rather, they are involved in a disproportionately high number of highly value-destroying deals.

Overall, our results suggest that the impact of individual directors on M&A outcomes is limited. It is well-known that large deals completed by larger firms are viewed especially critical by the market (Moeller et al., 2004, 2005). We conclude that while there is evidence that those firms complete less mergers and especially diversifying bids, the completed M&A's are value-destroying. The total dollar loss incurred through acquisitions is substantial. They are involved in less than a tenth of the acquisitions in our sample but responsible for over two-thirds of the dollar losses. Our evidence shows that the ability of individual directors to improve M&A performance is limited or non-existent. Firm and deal size, on the other hand, are the main determinants of acquisition performance and deal structure.

Chapter 5

Conclusion

5.1 Conclusion

As primary agents to protect shareholder interest, outside directors play a vital role on the boards of directors. To understand what motivates outside directors to effectively monitor senior management has been, and still is, a key issue in corporate governance. It feeds into the design and composition of the board of directors and is of great importance to shareholders. Unlike most economic systems, the market for outside directors is not primarily governed by financial incentives. Instead, reputation is recognized as the primary incentive device in the market for outside directors. It is thus essential to understand how reputation shapes the director selection process, its implications and consequences for the appointing firm and, ultimately, for the shareholders.

The thesis introduces a novel way to approach the analysis of director reputation. We use a hand-collected sample of CEO awards from major national publications and identify the outside board positions of CEO award winners. Exploiting the award-induced shift in a director's reputation, we are able to design new empirical tests to better understand how director reputation affects the market for outside directorships. Overall, the results presented throughout this thesis underscore the important role ascribed to director reputation. We show that the consequences of an economic system where reputation serves as a commodity and incentive device alike are directly observable at the director- and firm level.

First, we demonstrate that director reputation is of great importance in the director-firm matching process. Reputation determines what board seats are available to which directors. High profile outside directors are appointed to firms that have significantly outperformed prior to the appointment. While it is not clear whether reputation-based matching will result in a board structure that will ensure effective monitoring, our firm-level evidence suggests that high profile outside director appointments can be viewed positively by shareholders. We find that firms with reputable directors (or a higher number of reputable directors) have a significantly higher firm value and better governance provisions in place. This is a result of the matching process itself, but also a reflection of investor perceptions.

Using a sample of director appointments, we are able to show that the positive association between outside director reputation and firm value is, at least partially, the result of a causal link. Based on an event study, we show that the investor reaction to a director appointment is significantly stronger if that director is considered more reputable. Reputation is recognized as part of a firm's human capital stock and signals financial stability and the potential for future growth. The positive investor reaction results in a short-term value premium that, given the large size of the firms that succeed in appointing highly reputable directors, translates into an economically significant effect.

One would expect that the appointment of high-profile outside directors would result in observable performance effects. However, looking at M&A's and long-term performance there is little or no evidence that individual outside directors contribute value through their board position. Our findings indicate that the role generally ascribed to outside directors may be more limited than often assumed.

The empirical results documented in this thesis are to a large extent a reflection of the director selection process and do not support the notion that firms benefit from high-profile outside director appointments in the long run. This interpretation is further supported by the fact that high-profile outside directors are significantly

more likely to miss board meetings and have significantly more commitments outside the board room. High profile outside directors are highly time constrained and likely not in a position to be diligent monitors. The results presented here directly feed into the literature on board composition and the importance of individual outside directors.

The thesis indicates the importance of identifying new ways to empirically test the implications of director reputation in the market for outside directors. Designing new empirical tests that circumvent or address the well-known endogeneity issues, can yield a substantial improvement of the understanding of how outside directors can be incentivized to be effective monitors and protect shareholder value.

5.1.1 Limitations and future research

As highlighted in each chapter of this thesis, there are significant additions to the research on director reputation and the importance of individual outside directors. Most notably, with the introduction of a new tool to identify some of the most reputable directors and study how their selection and presence affects firm outcomes. However, the research also points out certain limitations of this research and avenues for future research.

Endogeneity is a concern for all empirical research that aims to uncover relationships between director- and board-level variables and firm outcomes (Hermalin and Weisbach, 1998; Hermalin et al., 2003). Endogeneity is less of a concern for event study (Chapter 2) and in relation to specific firm outcomes (Chapter 4). Nevertheless, these empirical set-ups are not perfect remedies and uncovered relationships or associations have to be interpreted carefully. However, this is a limitation that is in no way specific to this thesis and applies to (almost) all empirical research in this area.

The research and findings presented throughout this thesis are based on an investigation on the largest public firms in the US, the S&P 1500. The use of this dataset

is motivated by practical consideration such as data availability and coverage of the board of directors. However, it is important to keep in mind that the S&P 1500 does not represent the entire population of US firms. It does not cover smaller public firms or any kind of private entity. While large US firms are often in the focus of investors and the media, they cannot be considered representative of all firms.

Moreover, the majority of corporate finance research is carried out using US data. Using US data has significant advantages in terms of data coverage, depth and accuracy. However, focussing on other large countries such as the UK, Japan and other large western European countries offers the potential for out of sample validation and the comparison of different governance and legal frameworks.

A further limitation in this respect, however, is the lack of comparable CEO awards in other countries. Extending the thesis to cover non-US data would offer the opportunity to test different hypotheses around director reputation in different countries.

A limitation more specific to the methodology employed throughout this thesis is that it only applies to a small subset of outside directors. While this approach also has advantages, it does not allow us to design a measure or construct tests of director reputation in general. However, the same limitation applies to the existing studies in this area (Masulis and Mobbs, 2011, 2014; Jiang et al., 2015).

Despite the scope and contributions of the research, avenues for future research exist. First, the introduced methodology could be applied and tested in additional contexts such as CEO compensation or CEO turnover. It is possible that the influence of CEO award winners extends to other important board functions.

Second, future research could aim to identify suitable instruments or other statistical tests that allow for causal inference. This would add further robustness to the results and address the aforementioned endogeneity concerns. However, suitable instruments and natural quasi-experiments are difficult to identify.

Third, it would be interesting to extend the thesis to include director awards

and compare investor reactions to the appointments of director award winners to those of CEO award winners. This would allow us to better understand whether the award itself, or the award in connection with the CEO position is what investors react to. To date, the existing sample of director awards is too small and the period in which they have been awarded too short.

Finally, it would be interesting to study how competitors react to the appointment of high-profile directors. It is likely that the direct competitor will feel pressure to appoint equally well-known and reputable directors. Again, it is not clear whether a competition for reputable directors is in the best interest of the shareholder.

Appendix A

Variable Definition

Outside director appointments are collected through *LexisNexis*, accounting data are from *Compustat* and stock return data are from *CRSP*. Additional information is collected from *NNDB* and *Who's Who in Finance and Business*.

Variable	Definition	Data source
Panel A: Awards		
First Award	An indicator variable equal to 1 if the director has won an award at the time of appointment.	CEO awards; LexisNexis
Total Number Awards	The total number of awards the director wins throughout his or her career.	CEO awards
Panel B: Director characteristics		
CEO	An indicator variable equal to 1 if the director is a CEO at the time of appointment	NNDB; Who's Who in Finance and Business, Execucomp
Other Chief Executive	An indicator variable equal to 1 if the director is a chief executive other than CEO at the time of appointment	NNDB; Who's Who in Finance and Business; Execucomp
Other Executive	An indicator variable equal to 1 if the director holds a non-chief executive position at the time of appointment	NNDB; Who's Who in Finance and Business; Execucomp
Retired	An indicator variable equal to 1 if the director is retired at the time of the appointment.	NNDB; Who's Who in Finance and Business; Execucomp
Female	An indicator variable equal to 1 if the director is female	NNDB; Who's Who in Finance and Business
Founder/CoFounder	An indicator variable equal to 1 if the director is a founder or co-founder of a publicly traded company	NNDB; Who's Who in Finance and Business
International Appointment	An indicator variable equal to 1 if the director's primary work is outside the United States.	NNDB; Who's Who in Finance and Business
Number of Board Seats	Number of outside board seats director held at time of appointment	LexisNexis, NNDB, Bloomberg Businessweek, RiskMetrics
More Than 4 Board Seats	An indicator variable equal to 1 if the director held more than 4 outside board seats at the time of appointment.	LexisNexis, NNDB, Bloomberg Businessweek, RiskMetrics
Ph.D./J.D./M.D.	An indicator variable equal to 1 if the director has a Ph.D, J.D. or M.D.	NNDB; Who's Who in Finance and Business

Variable	Definition	Data source
Ivy League	An indicator variable equal to 1 if the director has completed at least parts of his or her education at an ivy league institution	NNDB; Who's Who in Finance and Business
Panel C: Appointing and appointee firm characteristics		
Assets (\$M)	Total assets.	Compustat
Market Capitalization	Market capitalization.	CRSP
Market-to-Book	Market capitalization over book equity.	CRSP; Compustat
R&D Expense	R&D expenditure over lagged assets. Missing values are substituted with zeros unless indicated.	Compustat
ROA	Operating income before depreciation over lagged assets.	Compustat

Additional results

Multicollinearity

Multicollinearity

This table reports collinearity diagnostics such as the variance inflation factor (VIF), the square root of the variance inflation factor (SQRT VIF), tolerance, and the R^2 .

Variable	VIF	SQRT VIF	Tolerance	R^2
CEO	1.75	1.32	0.5722	0.4278
First Award	1.46	1.21	0.6839	0.3161
Total Number Awards	1.11	1.06	0.8977	0.1023
Other Chief Executive	1.28	1.13	0.7812	0.2188
Other Executive	1.67	1.29	0.5976	0.4024
Founder/CoFounder	1.12	1.06	0.8949	0.1051
Female	1.22	1.11	0.8179	0.1821
Number of Board Seats	1.12	1.06	0.8905	0.1095
Ph.D./J.D./M.D.	1.03	1.01	0.9716	0.0284
Ivy League	1.06	1.03	0.9433	0.0567
International Appointment	1.08	1.04	0.9291	0.0709
LN(Assets)	1.21	1.10	0.8288	0.1712
Market-to-Book	1.32	1.15	0.7567	0.2433
R&D Expense	1.63	1.28	0.6139	0.3861
ROA	3.48	1.87	0.2873	0.7127
ROA($t - 1$)	3.34	1.83	0.2997	0.7003
Mean VIF	1.56			

Additional descriptives: Alpha and beta

Alpha and beta: Additional descriptives

This table reports reports descriptive statistics for alpha and beta based on 1 year of trading data prior to the director appointment. The table reports the number of observations, mean, median, variance, minimum and maximum, the range and the 75th and 90th percentile.

	Beta	Alpha
Observations	432	432
Mean	1.0511	0.0003
Median	1.0104	0.0003
Variance	0.2454	0.0000
Min	-0.2843	-0.0047
Max	3.7021	0.0096
Range	3.9864	0.0143
P75	1.2975	0.009
P90	1.5662	0.0017

Alpha and beta coefficients

Beta coefficients

This table reports individual beta coefficients estimated using 1 year of trading data prior to the director appointment.

ID	Date	Beta	Alpha	ID	Date	Beta	Alpha	ID	Date	Beta	Alpha
1	2003-10-15	0.67	0.00	51	2002-02-25	1.01	0.00	101	2008-05-28	1.02	0.00
2	2007-03-13	1.16	0.00	52	2005-03-10	1.44	0.00	102	1995-07-24	1.88	0.00
3	2007-07-24	1.34	0.00	53	1997-12-02	0.74	0.00	103	1997-03-26	0.86	0.00
4	2007-01-29	0.39	0.00	54	2003-07-05	#N/A	#N/A	104	1998-07-09	-0.28	0.00
5	2013-02-19	1.30	0.00	55	2002-08-12	0.87	0.00	105	1988-11-10	1.24	0.00
6	2008-03-11	0.98	0.00	56	2002-01-25	0.04	0.00	106	2002-02-19	0.33	0.00
7	1985-02-26	1.20	0.00	57	2005-10-06	1.00	0.00	107	1993-02-22	#N/A	#N/A
8	1989-02-17	0.91	0.00	58	2007-08-21	0.90	0.00	108	1993-08-12	1.53	0.00
9	1992-08-26	0.56	0.00	59	2009-09-28	1.28	0.00	109	2003-11-06	1.24	0.00
10	1999-12-22	1.70	0.00	60	1988-12-20	1.56	0.00	110	2005-02-22	1.54	0.00
11	2004-12-17	1.40	0.00	61	1988-12-21	1.46	0.00	111	2007-02-28	1.01	0.00
12	2005-11-22	1.07	0.00	62	1995-09-15	0.72	0.00	112	2011-11-16	0.85	0.00
13	2007-04-24	0.91	0.00	63	1987-06-04	1.16	0.00	113	2006-08-29	1.48	0.00
14	2013-07-31	1.52	0.00	64	2003-06-18	1.57	0.00	114	1995-01-26	0.79	0.00
15	1996-08-14	1.31	0.00	65	2011-03-17	1.42	0.00	115	2004-04-26	0.43	0.00
16	2000-09-26	0.53	0.00	66	2002-02-01	0.22	0.00	116	2002-06-13	1.23	0.00
17	1998-07-06	1.29	0.00	67	2012-07-20	1.09	0.00	117	1986-04-16	1.80	0.00
18	2008-01-07	1.28	0.00	68	1998-01-28	#N/A	#N/A	118	1989-10-04	0.83	0.00
19	2008-01-17	0.39	0.00	69	1999-10-28	0.40	0.00	119	1992-08-13	0.75	0.00
20	2000-12-07	0.85	0.00	70	2014-11-05	1.41	0.00	120	1996-09-25	0.82	0.00
21	2001-01-03	0.73	0.00	71	2007-07-17	1.23	0.00	121	1995-06-13	1.66	0.00
22	2000-08-15	1.64	0.00	72	2002-05-01	1.35	0.00	122	1996-09-03	#N/A	#N/A
23	2001-04-20	0.83	0.00	73	2011-10-25	0.71	0.00	123	1999-01-06	#N/A	#N/A
24	2006-07-20	0.72	0.00	74	1997-06-06	0.61	0.00	124	2002-01-08	1.10	0.00
25	1997-10-15	0.46	0.00	75	1998-11-11	1.17	0.00	125	2002-05-03	1.09	0.00
26	2004-12-14	0.31	0.00	76	2007-01-18	1.18	0.00	126	2003-06-09	1.25	0.00
27	2011-06-08	1.12	0.00	77	2010-03-29	#N/A	#N/A	127	2005-12-22	1.23	0.00
28	2012-03-20	1.04	0.00	78	2008-11-12	2.58	0.00	128	2015-04-08	1.09	0.00
29	1999-01-12	0.98	0.00	79	1987-06-18	1.43	0.00	129	2011-09-29	0.92	0.00
30	2003-11-25	0.44	0.00	80	1990-11-01	1.49	0.00	130	1998-08-05	0.68	0.00
31	2001-01-31	-0.03	0.00	81	1990-03-12	1.49	0.00	131	2002-08-07	1.31	0.00
32	2004-10-13	1.35	0.00	82	1991-01-22	0.52	0.00	132	2008-12-08	0.65	0.00
33	2002-02-15	1.25	0.00	83	1992-08-17	0.95	0.00	133	1998-01-27	0.66	0.00
34	2004-01-27	1.01	0.00	84	1990-11-02	0.63	0.00	134	2014-03-19	1.16	0.00
35	1994-03-23	1.07	0.00	85	1997-07-21	0.81	0.00	135	2003-01-30	0.59	0.00
36	2004-09-02	0.76	0.00	86	1999-02-24	0.70	0.00	136	2002-03-18	1.31	0.00
37	2007-12-12	1.20	0.00	87	2000-09-20	0.40	0.00	137	1991-01-18	0.88	0.00
38	2000-05-08	0.60	0.00	88	2004-11-16	1.10	0.00	138	1993-09-24	0.95	0.00
39	2002-05-30	0.39	0.00	89	1992-11-03	1.12	0.00	139	2001-07-17	0.52	0.00
40	2015-02-10	0.87	0.00	90	1992-02-26	0.85	0.00	140	1999-07-29	0.62	0.00
41	1993-04-26	2.13	0.00	91	1993-01-13	1.23	0.00	141	1999-03-05	0.86	0.00
42	1979-06-22	2.96	0.00	92	2003-04-22	0.90	0.00	142	2004-05-13	0.59	0.00
43	1980-11-05	0.67	0.00	93	1993-10-20	0.82	0.00	143	2005-01-12	1.09	0.00
44	1987-04-24	1.22	0.00	94	2002-03-25	0.94	0.00	144	2002-07-17	2.30	0.00
45	1993-12-14	1.07	0.00	95	1996-06-05	0.79	0.00	145	2010-03-19	1.46	0.00
46	1994-02-01	0.75	0.00	96	1987-07-21	0.95	0.00	146	1989-07-25	1.37	0.00
47	1986-05-05	0.71	0.01	97	1989-05-25	1.24	0.00	147	1991-11-04	0.85	0.00
48	1997-10-30	0.61	0.00	98	2005-04-08	0.73	0.00	148	1998-01-20	1.22	0.00
49	2000-03-06	0.75	0.00	99	1988-09-28	0.99	0.00	149	1996-09-16	0.73	0.00
50	2000-04-13	0.25	0.00	100	1990-11-06	1.14	0.00	150	2001-01-17	0.99	0.00

Beta coefficients

This table reports individual beta coefficients estimated using 1 year of trading data prior to the director appointment.

ID	Date	Beta	Alpha	ID	Date	Beta	Alpha	ID	Date	Beta	Alpha
151	1999-06-22	0.54	0.00	201	1994-02-04	1.05	0.00	251	2010-03-16	2.40	0.00
152	1981-02-20	0.48	0.00	202	1994-04-26	0.96	0.00	252	2010-09-20	0.68	0.00
153	1997-09-12	1.50	0.00	203	1995-02-21	#N/A	#N/A	253	1991-05-20	0.25	0.00
154	1998-12-03	0.88	0.00	204	1999-11-09	1.72	0.00	254	1999-07-30	0.86	0.00
155	1999-03-08	0.93	0.00	205	2005-08-29	0.71	0.00	255	1992-10-30	1.25	0.00
156	2005-09-15	1.24	0.00	206	2001-03-01	0.10	0.00	256	1999-09-14	1.19	0.00
157	2002-01-14	1.38	0.01	207	2003-07-25	0.71	0.00	257	2001-09-18	3.70	0.00
158	1999-03-29	0.93	0.00	208	2007-07-26	1.22	0.00	258	2001-02-14	1.02	0.00
159	1995-02-03	1.25	0.00	209	1984-01-31	1.16	0.00	259	2004-03-09	0.97	0.00
160	1995-08-08	0.68	0.00	210	1985-03-22	0.98	0.00	260	1995-08-08	0.98	0.00
161	1996-10-07	0.76	0.00	211	2002-02-05	0.97	0.00	261	1986-04-03	2.01	0.00
162	2011-01-25	1.10	0.00	212	2000-04-17	1.21	0.00	262	1993-11-19	0.64	0.00
163	2007-12-06	1.82	0.00	213	1999-02-11	1.59	0.00	263	1999-09-08	1.33	0.00
164	1977-03-14	1.14	0.00	214	2005-08-04	0.78	0.00	264	1995-10-25	1.30	0.00
165	1992-08-25	1.74	0.00	215	2005-12-22	1.37	0.00	265	1985-07-11	1.27	0.00
166	1986-06-12	1.23	0.00	216	2002-04-16	1.15	0.00	266	1990-12-19	1.17	0.00
167	1995-09-21	1.28	0.00	217	2003-11-06	0.38	0.00	267	1999-03-22	1.63	0.00
168	2005-02-17	0.86	0.00	218	2012-02-07	1.03	0.00	268	2001-10-01	1.55	0.00
169	1989-03-02	1.06	0.00	219	2013-10-22	1.52	0.00	269	2005-04-21	1.22	0.00
170	1991-01-24	0.99	0.00	220	2002-06-12	2.47	0.00	270	2011-02-28	#N/A	#N/A
171	1997-11-07	0.44	0.00	221	2006-09-27	1.53	0.00	271	2001-02-06	1.23	0.00
172	2002-04-03	1.52	0.00	222	2006-12-07	0.86	0.00	272	2013-11-06	1.15	0.00
173	2001-08-10	0.55	0.00	223	2000-01-13	0.95	0.00	273	2006-06-26	1.06	0.00
174	2002-01-03	0.51	0.00	224	2000-01-26	1.61	0.00	274	2003-08-01	0.29	0.00
175	1997-03-11	1.15	0.00	225	1992-09-21	1.41	0.00	275	2016-01-12	#N/A	#N/A
176	2000-05-11	1.85	0.00	226	1995-02-21	0.82	0.00	276	1991-02-28	0.62	0.00
177	2010-03-26	0.39	0.00	227	1998-09-24	0.68	0.00	277	1995-08-03	2.20	0.00
178	1995-11-21	0.97	0.00	228	2014-11-25	0.80	0.00	278	2004-11-17	2.69	0.00
179	1998-08-26	1.02	0.00	229	1995-03-21	1.69	0.00	279	2010-09-24	0.53	0.00
180	1999-09-29	0.67	0.00	230	2001-05-04	1.95	0.00	280	2014-03-10	1.54	0.00
181	2001-11-19	0.62	0.00	231	2008-05-28	0.76	0.00	281	2000-05-24	0.44	0.00
182	2011-01-13	#N/A	#N/A	232	1994-12-02	0.88	0.00	282	2006-02-06	1.70	0.00
183	2011-04-05	#N/A	#N/A	233	1997-11-03	0.66	0.00	283	2007-01-16	1.11	0.00
184	1997-09-30	0.60	0.00	234	1992-07-08	1.47	0.00	284	2014-09-22	0.70	0.00
185	1994-03-14	1.19	0.00	235	1995-05-04	0.72	0.00	285	2006-12-21	0.83	0.00
186	1998-01-22	1.87	0.00	236	1998-10-19	1.43	0.00	286	2013-02-01	0.61	0.00
187	2000-02-18	2.05	0.00	237	2008-11-19	0.97	0.00	287	2006-05-08	0.72	0.00
188	1995-11-09	0.95	0.00	238	1988-09-28	0.65	0.00	288	2003-09-02	1.99	0.01
189	1999-10-26	-0.08	0.00	239	1992-05-14	0.62	0.00	289	1995-08-01	0.95	0.00
190	1992-09-29	1.54	0.00	240	1998-10-27	1.13	0.00	290	1996-08-05	0.97	0.00
191	1999-10-12	0.91	0.01	241	1987-05-13	1.51	0.00	291	2002-06-10	0.61	0.00
192	2009-11-18	1.79	0.01	242	1993-10-26	1.24	0.00	292	1989-04-19	1.13	0.00
193	1984-03-20	0.50	0.00	243	2000-10-17	3.26	0.01	293	1993-10-21	1.33	0.00
194	1992-03-10	0.93	0.00	244	1993-12-09	0.52	0.00	294	1998-08-28	#N/A	#N/A
195	2000-06-22	#N/A	#N/A	245	1999-01-28	0.60	0.00	295	2011-03-16	1.52	0.00
196	2004-01-08	0.87	0.00	246	2003-10-06	1.37	0.00	296	1999-10-04	1.12	0.00
197	2007-09-20	0.59	0.00	247	2007-03-02	0.86	0.00	297	2005-07-20	0.71	0.00
198	2000-05-19	2.39	0.00	248	2003-03-26	1.46	0.00	298	1992-07-29	1.21	0.00
199	2004-06-01	1.41	0.00	249	1995-06-28	0.48	0.00	299	1995-02-01	0.83	0.00
200	1990-02-05	0.83	0.00	250	1996-06-25	0.43	0.00	300	1997-02-12	#N/A	#N/A

Beta coefficients

This table reports individual beta coefficients estimated using 1 year of trading data prior to the director appointment.

ID	Date	Beta	Alpha	ID	Date	Beta	Alpha	ID	Date	Beta	Alpha
301	1998-07-30	1.02	0.00	351	1991-05-06	1.32	0.00	401	1989-10-19	1.12	0.00
302	1999-07-29	1.10	0.00	352	1989-07-10	1.01	0.00	402	2006-07-26	1.49	0.00
303	2006-12-19	#N/A	#N/A	353	1994-09-30	0.66	0.00	403	2010-02-12	0.44	0.00
304	2013-12-16	0.88	0.00	354	2000-02-23	0.66	0.00	404	1983-12-21	1.36	0.00
305	2015-04-13	0.94	0.00	355	2000-01-20	0.32	0.00	405	2002-05-21	2.81	0.00
306	1991-09-23	1.34	0.00	356	2014-08-08	0.53	0.00	406	2006-06-14	0.94	0.00
307	1997-07-08	0.70	0.00	357	1997-10-30	1.17	0.00	407	1999-12-07	0.39	0.00
308	2007-02-23	1.63	0.00	358	2003-04-02	0.50	0.00	408	2000-10-12	0.42	0.00
309	1993-03-15	1.82	0.00	359	2011-06-20	1.25	0.00	409	2009-10-08	0.75	0.00
310	1995-05-15	#N/A	#N/A	360	2008-05-30	1.31	0.00	410	1992-09-25	0.63	0.00
311	1990-01-02	0.84	0.00	361	1998-07-21	0.93	0.00	411	2003-05-20	0.61	0.00
312	2002-07-29	1.47	0.00	362	1998-07-29	1.20	0.00	412	1985-02-05	0.59	0.00
313	2004-03-04	1.16	0.00	363	1999-11-30	0.73	0.00	413	1985-08-07	1.03	0.00
314	1994-03-23	0.55	0.00	364	1999-11-02	1.21	0.00	414	1986-10-16	0.63	0.00
315	1999-10-06	#N/A	#N/A	365	1997-01-27	1.37	0.00	415	1989-07-19	#N/A	#N/A
316	1988-02-09	0.82	0.00	366	2000-03-22	1.50	0.00	416	1997-11-18	0.25	0.00
317	1997-12-11	0.60	0.00	367	1989-02-14	1.01	0.00	417	1996-08-08	0.64	0.00
318	2001-05-08	1.31	0.00	368	2012-05-03	0.78	0.00	418	1998-01-28	0.96	0.00
319	1990-05-09	1.22	0.00	369	1993-11-24	1.55	0.00	419	1992-04-27	0.53	0.00
320	1998-07-27	1.18	0.00	370	1995-01-30	0.99	0.00	420	1983-08-05	0.46	0.00
321	2008-12-17	1.40	0.00	371	1997-09-22	0.85	0.00	421	2000-07-27	0.70	0.00
322	1996-03-13	1.20	0.00	372	1999-12-03	0.53	0.00	422	2000-10-30	0.40	0.00
323	2000-03-08	1.93	0.00	373	2002-11-18	1.68	0.00	423	1989-04-25	1.06	0.00
324	1995-10-15	#N/A	#N/A	374	1996-04-12	1.06	0.00	424	1998-07-29	1.02	0.00
325	1998-11-03	0.66	0.00	375	1999-09-09	1.55	0.00	425	1993-05-26	1.04	0.00
326	2005-03-01	2.26	0.00	376	2005-11-29	1.22	0.00	426	2002-12-18	1.17	0.00
327	2013-02-04	1.46	0.00	377	2000-11-16	0.40	0.00	427	2005-05-25	0.95	0.00
328	1994-10-18	1.20	0.00	378	2007-03-15	1.03	0.00	428	1992-04-20	0.78	0.00
329	1993-05-12	1.21	0.00	379	2007-05-30	0.92	0.00	429	1998-12-04	0.58	0.00
330	1996-11-06	1.02	0.00	380	1996-02-05	0.95	0.00	430	1995-02-03	1.07	0.00
331	2005-01-19	1.70	0.00	381	2003-02-05	0.78	0.00	431	1998-04-23	1.08	0.00
332	2011-11-15	0.75	0.00	382	2007-12-04	1.03	0.00	432	1987-11-12	1.06	0.00
333	2002-07-22	1.41	0.00	383	1998-12-16	0.14	0.00				
334	2008-05-15	1.04	0.00	384	1983-07-13	0.74	0.00				
335	1983-11-22	0.59	0.00	385	1988-05-18	0.79	0.00				
336	1986-01-06	1.30	0.00	386	2000-03-31	1.36	0.00				
337	1990-02-22	1.60	0.00	387	1999-03-01	0.81	0.00				
338	1994-02-03	2.04	0.00	388	1987-01-27	0.89	0.00				
339	1995-01-10	1.13	0.00	389	1998-05-15	0.73	0.00				
340	2000-09-18	0.15	0.00	390	2001-04-04	0.72	0.00				
341	2007-10-29	1.03	0.00	391	2003-04-25	1.26	0.00				
342	2004-01-22	0.99	0.00	392	2005-06-17	1.39	0.00				
343	2005-06-10	0.95	0.00	393	1992-04-07	0.50	0.00				
344	2009-10-21	1.56	0.00	394	2003-03-11	0.76	0.00				
345	2003-11-05	1.01	0.00	395	2009-10-26	0.79	0.00				
346	1995-07-26	0.37	0.00	396	1992-07-16	2.17	0.00				
347	2000-02-01	0.81	0.00	397	1998-01-28	1.10	0.00				
348	1985-04-23	1.28	0.00	398	2000-09-21	0.34	0.00				
349	1989-02-02	1.49	0.00	399	1987-07-15	#N/A	#N/A				
350	1989-11-30	1.12	0.00	400	1989-07-20	1.49	0.00				

Alternative abnormal return calculation: Market-adjusted CARs

Market-adjusted CARs: Full Sample

This table reports regression results with the 3-day market-adjusted cumulative abnormal return associated with an outside director appointment as dependent variable. The sample consists of 432 outside director appointments of 238 individual directors from 1977 to 2015. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and director-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	CAR[-1,1]				
	(1)	(2)	(3)	(4)	(5)
CEO × First Award	0.0190** (2.53)	0.0182** (2.43)	0.0184** (2.41)	0.0184** (2.40)	0.0188** (2.46)
CEO	-0.0135* (-1.89)	-0.0133* (-1.85)	-0.0132* (-1.84)	-0.0135* (-1.87)	-0.0140* (-1.96)
First Award	-0.0113* (-1.73)	-0.0103 (-1.57)	-0.0102 (-1.54)	-0.0102 (-1.53)	-0.0107 (-1.64)
Total Number Awards	-0.00182 (-0.81)	-0.00173 (-0.73)	-0.0018 (-0.78)	-0.0018 (-0.78)	-0.0018 (-0.78)
Other Chief Executive	0.00170 (0.17)	0.00108 (0.10)	0.00127 (0.12)	0.0014 (0.13)	0.0016 (0.15)
Other Executive	-0.0202*** (-3.12)	-0.0210*** (-3.24)	-0.0209*** (-3.21)	-0.0208*** (-3.20)	-0.0205*** (-3.18)
Female	-0.0155*** (-2.64)	-0.0160*** (-2.63)	-0.0162*** (-2.60)	-0.0164** (-2.59)	-0.0166*** (-2.64)
Founder/CoFounder		-0.0014 (-0.17)	-0.0017 (-0.21)	-0.0016 (-0.20)	-0.0018 (-0.22)
International Appointment		0.0008 (0.11)	0.0012 (0.16)	0.0015 (0.20)	0.0013 (0.18)
Number of Board Seats		-0.0012 (-0.84)	-0.0013 (-0.93)	-0.0013 (-0.89)	
More Than 4 Board Seats					-0.0067 (-1.47)
Ph.D./J.D./M.D.			-0.0041 (-0.79)	-0.0040 (-0.78)	-0.0041 (-0.79)
Ivy League			0.0016 (0.38)	0.0019 (0.44)	0.0019 (0.42)
Industry CEO				0.0042 (0.43)	0.0038 (0.38)
LN(Assets)	-0.00133 (-1.30)	-0.0014 (-1.32)	-0.0014 (-1.34)	-0.0013 (-1.27)	-0.0014 (-1.32)
Market-to-Book	-0.0008 (-1.34)	-0.0009 (-1.43)	-0.0009 (-1.42)	-0.0009 (-1.43)	-0.0009 (-1.45)
R&D Expense	-0.0057 (-0.26)	-0.0043 (-0.20)	-0.0034 (-0.16)	-0.0032 (-0.15)	-0.0047 (-0.21)
ROA	0.0705* (1.74)	0.0710* (1.72)	0.0698* (1.70)	0.0703* (1.71)	0.0723* (1.78)
ROA _(t-1)	-0.0265 (-0.63)	-0.0263 (-0.61)	-0.0254 (-0.59)	-0.0249 (-0.57)	-0.0276 (-0.64)
Intercept	0.0281** (2.30)	0.0306** (2.47)	0.0310** (2.50)	0.0303** (2.42)	0.0298** (2.41)
Observations	398	398	398	398	398
R ²	0.060	0.062	0.063	0.064	0.066

Market-adjusted CARs: CEO director appointment

This table reports regression results with the 3-day cumulative abnormal return associated with an outside director appointment as dependent variable. The sample consists of 432 outside director appointments of 238 individual directors from 1977 to 2015. *t*-statistics given in parentheses are based on standard errors corrected for heteroskedasticity and director-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	CAR[-1,1]			
	(1)	(2)	(3)	(4)
First Award	0.0087** (2.00)	0.0090** (2.02)	0.0093** (2.07)	0.0094** (2.06)
Total Number Awards	-0.0018 (-0.65)	-0.0019 (-0.67)	-0.0019 (-0.69)	-0.0019 (-0.69)
Female	-0.0201 (-1.34)	-0.0204 (-1.36)	-0.0208 (-1.36)	-0.0211 (-1.36)
Founder/CoFounder	0.0000 (0.00)	-0.0003 (-0.03)	-0.0005 (-0.06)	-0.0005 (-0.05)
International Appointment	0.0047 (0.50)	0.0038 (0.39)	0.0038 (0.38)	0.0042 (0.41)
Number of Board Seats		-0.0013 (-0.69)	-0.0013 (-0.67)	-0.0012 (-0.63)
Ph.D./J.D./M.D.			-0.0055 (-0.92)	-0.0055 (-0.91)
Ivy League			0.0004 (0.08)	0.0008 (0.14)
IndustryCEO				0.0031 (0.29)
LN(Assets)	-0.0025* (-1.85)	-0.0025* (-1.81)	-0.0025* (-1.83)	-0.0025* (-1.73)
Market-to-Book	-0.0012 (-1.52)	-0.0013 (-1.58)	-0.0012 (-1.53)	-0.0013 (-1.51)
R&D Expense	-0.0105 (-0.25)	-0.0085 (-0.21)	-0.0072 (-0.17)	-0.0083 (-0.20)
ROA	0.0612 (1.41)	0.0613 (1.39)	0.0599 (1.38)	0.0600 (1.36)
ROA _(t-1)	-0.0334 (-0.75)	-0.0317 (-0.69)	-0.0309 (-0.67)	-0.0295 (-0.62)
Intercept	0.0284* (1.82)	0.0309* (1.88)	0.0315* (1.90)	0.0304* (1.74)
Observations	237	237	237	237
R ²	0.053	0.055	0.057	0.058

Alternative event window specification: (0,2) and (0,3)

Alternative event windows

This table reports regression results with alternative event windows. We report 3-day (0,2) and 4-day (0,3) cumulative abnormal returns associated with an outside director appointment as dependent variable. The sample consists of 432 outside director appointments of 238 individual directors from 1977 to 2015. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and director-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	CAR[0,2]	CAR[0,3]
	(1)	(2)
CEO × First Award	0.0126*	0.0149*
	(1.81)	(1.95)
CEO	-0.0112*	-0.0135*
	(-1.70)	(-1.93)
First Award	-0.0079	-0.0063
	(-1.39)	(-1.07)
Total Number Awards	-0.0017	0.0003
	(-0.73)	(0.14)
Other Chief Executive	-0.0032	-0.0048
	(-0.40)	(-0.62)
Other Executive	-0.0194***	-0.0231***
	(-3.41)	(-3.67)
Female	-0.0130**	-0.0088
	(-2.60)	(-1.53)
Founder/CoFounder	0.0141*	0.0145
	(1.80)	(1.62)
International Appointment	0.0100*	0.0097
	(1.77)	(1.36)
More Than 4 Board Seats	-0.0082*	-0.0155***
	(-1.84)	(-2.86)
Ph.D./J.D./M.D.	-0.0002	-0.0039
	(-0.03)	(-0.78)
Ivy League	0.0036	0.0095*
	(0.79)	(1.79)
Industry CEO	0.0058	0.0072
	(0.63)	(0.64)
LN(Assets)	-0.0004	-0.0006
	(-0.51)	(-0.63)
Market-to-Book	-0.0018***	-0.0026***
	(-3.42)	(-3.89)
R&D Expense	-0.0020	-0.0040
	(-0.11)	(-0.19)
ROA	0.0314	0.0934***
	(0.80)	(2.76)
ROA _(t-1)	0.0259	-0.0244
	(0.63)	(-0.59)
Intercept	0.0183	0.0181
	(1.65)	(1.49)
Observations	398	398
R ²	0.088	0.118

Female directors

Female directors: Additional descriptives

This table reports additional statistics on the cumulative abnormal return for female directors. The 3-day cumulative abnormal return is estimated using 1 year of trading data. Column (1) reports results for the overall sample, column (2) reports results for female directors and results for all non-female directors are reported in column (3).

	Overall (1)	Female directors (2)	All non-female directors (3)
Mean	0.0031	-0.0135	0.0048
Median	0.0018	-0.0135	0.0025
Variance	0.0014	0.0013	0.0014
Max	0.1324	0.0880	0.1324
Min	-0.0936	-0.0916	-0.0936
P75	0.0192	0.0117	0.0217
P90	0.0492	0.0228	0.0515
Observations	432	38	394

Female directors: Individual announcement returns

This table reports mean and median cumulative abnormal returns using 1 year of trading data for all female directors in our sample.

ID	Observations	Mean	Median
8	2	-0.0383	-0.0383
9	1	-0.0190	-0.0190
21	1	-0.0384	-0.0384
22	2	-0.0144	-0.0144
23	2	0.0305	0.0305
29	5	-0.0015	0.0018
30	1	-0.0250	-0.0250
45	1	0.0228	0.0228
59	2	0.0030	0.0030
86	1	-0.0491	-0.0491
99	2	0.0105	0.0105
114	1	-0.0111	-0.0111
119	1	0.1324	0.1324
126	3	-0.0148	-0.0199
127	2	-0.0308	-0.0308
128	3	-0.0035	0.0117
144	1	-0.0407	-0.0407
151	1	0.0222	0.0222
167	2	-0.0526	-0.0526
197	3	-0.0110	-0.0334
212	3	-0.0132	-0.0153
Total	38	-0.0098	-0.0114

Long-term pre-appointment performance: Fama-French 3-factor model

Long-term firm performance before director appointments

This table reports results from Fama-French (FF) three factor regressions to detect abnormal returns around outside director appointments. This table specifically looks at the pre-appointment period. Panel A reports results for the 12-month, Panel B for the 24-month and Panel C for the 36-month pre-appointment period. RMRF is the difference between monthly stock return portfolio and 91-day T-bill rate. SMB is the difference between the returns of small size firm portfolios and large size firm portfolios. HML is the difference between the returns of value firm portfolios and growth firm portfolios. We use the weighted least square (WLS) technique in the value-weight portfolio analysis, in which the square root of the number of firms in each month is used as the weight in the regression model. The “Alpha” value reported in the regression model indicates the monthly average abnormal return of the sample. *t* – statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Factors				Model Characteristics	
	Alpha	RMRF	SMB	HML	Adj. R^2	F-stat
Panel A : Event window -12-0 (month)						
All appointments (N = 420)	0.0053*** (3.25)	1.0591*** (26.67)	0.2693*** (5.66)	0.0138 (0.25)	0.6859	317.61***
CEO appointments (N = 244)	0.0059*** (3.19)	1.0162*** (21.12)	0.1692*** (3.06)	-0.0941* (-1.40)	0.6000	211.53***
Award-winner appointment (N = 236)	0.0056*** (2.43)	1.1643*** (21.43)	0.2686*** (4.30)	0.0299 (0.41)	0.6344	201.68***
Award-winning CEO appointment (N = 108)	0.0064** (2.24)	1.1162*** (15.74)	0.0418 (0.54)	-0.1663** (-1.76)	0.5278	118.37***
Panel B : Event window -24-0 (month)						
All appointments (N = 420)	0.0058*** (4.83)	1.1160*** (39.05)	0.2102*** (5.89)	0.0954** (2.31)	0.8001	634.56***
CEO appointments (N = 244)	0.0059*** (4.32)	1.1093*** (33.06)	0.1508*** (3.63)	0.0131 (0.27)	0.7573	472.08***
Award-winner appointment (N = 237)	0.0050*** (3.07)	1.2073*** (31.84)	0.1915*** (4.27)	0.1048** (2.03)	0.7624	411.65***
Award-winning CEO appointment (N = 108)	0.0040** (2.11)	1.2192*** (26.91)	0.0288 (0.55)	-0.0526 (-0.85)	0.7107	308.94***
Panel C : Event window -36-0 (month)						
All appointments (N = 420)	0.0063*** (6.31)	1.1217*** (46.97)	0.1787*** (5.96)	0.1143*** (3.31)	0.8446	893.83***
CEO appointments (N = 244)	0.0059*** (5.22)	1.1296*** (41.08)	0.1028*** (2.96)	0.0476 (1.17)	0.8126	687.75***
Award-winner appointment (N = 236)	0.0065*** (4.49)	1.2036*** (35.63)	0.1726*** (4.30)	0.1152*** (2.48)	0.7938	509.25***
Award-winning CEO appointment (N = 108)	0.0050*** (3.07)	1.2249*** (31.49)	0.0189 (0.41)	0.0017 (0.03)	0.7546	401.84***

Appendix B

Variable Definition

The governance data used in this study are from *RiskMetrics*, accounting data are from *Compustat*, compensation data are from *Execucomp*, stock return data from *CRSP*, and institutional ownership data from *Thomson Reuters - Institutional (13f) Holdings*.

Variable	Definition	Data source
Panel A: Award-winning CEO outside director variables		
AwCeo outside directors (Number)	Number of outside directors who serve as CEO of another company and have won a CEO award.	RiskMetrics; CEO awards
AwCeo outside directors (Dummy)	Indicator variable equal to one if firm has at least one outside director who serves as CEO of another company and has won a CEO award.	
AwCeo outside directors (Fraction)	Fraction of directors who serve as CEO of another company, have won a CEO award and are listed as outside director on the board of director.	
Panel B: Performance and governance measures		
Tobin's Q	Total assets plus the market value of equity minus the book value of equity and deferred taxes over total assets.	Compustat
ROA	Operating income before depreciation over lagged assets.	Compustat
Entrenchment index	Entrenchment index from Bebchuk et al. (2009).	RiskMetrics
Panel C: Control variables		
Retired AwCeo outside directors (Number)	Number of outside directors who are retired CEOs of other firms and have won a CEO award.	RiskMetrics; CEO awards
Retired AwCeo outside directors (Dummy)	Indicator variable equal to one if firm has at least one outside director who is a retired CEO of another company and has won a CEO award.	
Retired AwCeo outside directors (Fraction)	Fraction of directors who serve are retired CEOs of other companies, have won a CEO award and are listed as outside director on the board of director.	
Current CEO award winner	An indicator variable equal to one if a firm's current CEO has won a CEO award.	RiskMetrics; CEO awards

Variable	Definition	Data source
Board size	Total number of directors on the board.	RiskMetrics
Fraction outside directors	Fraction of outside directors on the board.	RiskMetrics
R&D expense	R&D expenditure over lagged assets. Missing values are substituted with zeros unless indicated.	Compustat
Capital expenditures	Capital expenditures over lagged assets.	Compustat
Capital intensity	Net property, plant and equipment over sales.	Compustat
Leverage	Long-term debt and debt in current liabilities to stockholders' equity.	Compustat
LN(Sales)	Natural logarithm of sales.	Compustat
Risk	Standard deviation of daily returns.	CRSP
Segments	Number of Business Segments.	Compustat
CEO ownership	Is the percentage of common shares outstanding owned by the CEO.	Execucomp
Panel D: Additional control variables		
Firm age	Max. years on Compustat or CRSP.	Compustat; CRSP
Fraction female directors	Fraction of female directors to total board size.	RiskMetrics
Fraction international directors	Fraction of international directors to total board size.	
Blockholder	Indicator variable equal to 1 if an institutional investor owns more than 10% of the common shares outstanding.	Thomson-Reuters 13f Holdings
CEO chair	An indicator variable equal to one if the CEO is also chairman of the board.	Execucomp
Outside directors number of CEO awards	Total number of CEO awards held by all outside directors who are currently serving as CEO of another firm.	RiskMetrics; CEO awards
ROS	Operating income before depreciation over lagged sales.	Compustat
Market-to-book	Market capitalization over book equity.	CRSP; Compustat

Additional Results

CEO directors and firm performance

CEO directors and firm performance

The table below reports regression results where the dependent variable is Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. *ROA* is defined as operating income before depreciation and taxes. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. We use the number in column (1), an indicator variable equal to one if the firm has at least one *AwCEO outside director* in column (2) and the fraction of *AwCEO outside director* with respect to the total board size in column (3). All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A	Tobin's Q		
	(1)	(2)	(3)
CEO outside directors (Number)	0.0106 (1.57)		
CEO outside directors (Dummy)		0.0364 (0.85)	
CEO outside directors (Fraction)			0.116 (1.60)
Control Variables as in Table 3.4	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23128	23128	23128
R^2	0.338	0.338	0.338
Panel B	ROA		
	(1)	(2)	(3)
CEO outside directors (Number)	-0.0010 (-1.55)		
CEO outside directors (Dummy)		-0.0058 (-1.21)	
CEO outside directors (Fraction)			-0.0109 (-1.56)
Control Variables as in Table 3.5	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	23239	23239	23239
R^2	0.281	0.281	0.281

Firm performance changes around director appointments

In this subsection, we examine long-term performance impacts around director appointments (Fich, 2005). We collect a total of 8,064 outside director appointments, 3,023 CEO outside director appointments and 264 award-winning CEO outside director appointments. Again, we focus on our two previous performance measures: *Tobin's Q* and *ROA*. We report results for mean and median performance changes all three different types of directors. Moreover, we account for industry effects and calculate industry-adjusted mean and median performance changes. The industry-adjusted Tobin's Q , for example, is the difference between Tobin's Q and the median

industry Tobin's Q , where industry is defined using the Fama-French 48 industry classifications. Finally, we calculate the respective performance changes across 6 different time windows: $(-3,-1)$, $(-1,+1)$, $(-1,+2)$, $(-1,+3)$, $(0,+3)$ and $(+1,+3)$. We keep only those observations for which all performance measures can be calculated across all different time windows. One drawback of this methodology is that it fails to take into account other major board or company news that took place during this period and potentially represent an event that is more important than the director appointment.

Changes in Tobin's Q around director appointments

The table below reports long-term performance changes around director appointments. Firm performance is measured using Tobin's Q . Tobin's Q is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. Tobin's Q is industry-adjusted by taking the difference between the appointing firm Tobin's Q and the median industry Tobin's Q , where the median Tobin's Q is calculated based on the Fama-French 48 industry classifications. Directors are classified as outside directors, CEO outside directors and award-winning CEO outside directors. We report results for mean and median performance changes as well as industry-adjusted performance changes. The table reports performance changes across 6 different time windows: (-3,-1), (-1,+1), (-1,+2), (-1,+3), (0,+3) and (+1,+3). The significance of median changes is measured using a two-tailed Wilcoxon signed rank test and the significance of mean changes is calculated with a standard two-tailed t -test. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Tobin's Q	CEO						Award-winning CEO					
	Outside director appointments			outside director appointments			outside director appointments			outside director appointments		
	N	Un-adjusted	Industry-adjusted	N	Un-adjusted	Industry-adjusted	N	Un-adjusted	Industry-adjusted	N	Un-adjusted	Industry-adjusted
-3 to -1	Mean	0.1362	0.0978	1893	0.1330	0.0893	160	0.1440	0.0396	160	0.0222	-0.0397 **
	Median	0.0299	0.0189	1893	0.0399	0.0179						
-1 to +1	Mean	0.1098	0.0792	2834	0.1179	0.0793	253	0.1667	0.1359	253	0.1667	0.1359
	Median	0.0312	0.0210	2834	0.0499**	0.0188	253	0.0498	0.0069	253	0.0498	0.0069
-1 to +2	Mean	0.1586	0.1153	2673	0.1576	0.1081	244	0.2294	0.2372**	244	0.2294	0.2372**
	Median	0.0544	0.0315	2673	0.0587	0.0276	244	0.0966	0.0993**	244	0.0966	0.0993**
-1 to +3	Mean	0.2021	0.1357	2541	0.2007	0.1292	238	0.3183*	0.2512*	238	0.3183*	0.2512*
	Median	0.0811	0.0396	2541	0.0832	0.0367	238	0.1271**	0.0749**	238	0.1271**	0.0749**
0 to +3	Mean	0.1393	0.0910	2538	0.1574	0.1069	237	0.2734**	0.2280**	237	0.2734**	0.2280**
	Median	0.0394	0.0242	2538	0.0395	0.0266	237	0.0797**	0.0744**	237	0.0797**	0.0744**
+1 to +3	Mean	0.0747	0.0512	2541	0.0869	0.0508	238	0.1723**	0.1346*	238	0.1723**	0.1346*
	Median	0.0078	0.0093	2541	0.0059	0.0069	238	0.0398**	0.0476**	238	0.0398**	0.0476**

Changes in Tobin's Q around director appointments

The table below reports long-term performance changes around director appointments. Firm performance is measured using ROA. ROA is defined as operating income before depreciation and taxes. ROA is industry-adjusted by taking the difference between the appointing firm ROA and the median industry ROA, where the median Tobin's Q is calculated based on the Fama-French 48 industry classifications. Directors are classified as outside directors, CEO outside directors and award-winning CEO outside directors. We report results for mean and median performance changes as well as industry-adjusted performance changes. The table reports performance changes across 6 different time windows: (-3,-1), (-1,+1), (-1,+2), (-1,+3), (0,+3) and (+1,+3). The significance of median changes is measured using a two-tailed Wilcoxon signed rank test and the significance of mean changes is calculated with a standard two-tailed *t*-test. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	ROA	Outside director appointments				CEO outside director appointments				Award-winning CEO outside director appointments			
		Un-adjusted		Industry-adjusted		Un-adjusted		Industry-adjusted		Un-adjusted		Industry-adjusted	
		N		N		N		N		N		N	
-3 to -1	Mean	5880	0.0102	0.0061	0.0127	1893	0.0063	0.0127	0.0063	160	0.0151	0.0032	0.0032
	Median	5880	0.0019	0.0015	0.0047	1893	0.0019	0.0047	0.0019	160	0.0008	-0.0028	-0.0028
-1 to +1	Mean	7269	0.0107	0.0062	0.0089	2834	0.0040*	0.0089	0.0040*	253	0.0095	0.0041	0.0041
	Median	7269	0.0033	0.0024	0.0029	2834	0.0028	0.0029	0.0028	253	0.0045	0.0011	0.0011
-1 to +2	Mean	6557	0.0154	0.0095	0.0147	2673	0.0079	0.0147	0.0079	244	0.0155	0.0098	0.0098
	Median	6557	0.0074	0.0043	0.0069	2673	0.0047	0.0069	0.0047	244	0.0082	0.0039	0.0039
-1 to +3	Mean	5920	0.0200	0.0114	0.0227*	2541	0.0105	0.0227*	0.0105	238	0.0299	0.0167	0.0167
	Median	5920	0.0108	0.0064	0.0122**	2541	0.0053	0.0122**	0.0053	238	0.0171	0.0083	0.0083
0 to +3	Mean	5918	0.0130	0.0074	0.0156*	2538	0.0071	0.0156*	0.0071	237	0.0220	0.0138	0.0138
	Median	5918	0.0055	0.0028	0.0075**	2538	0.0034	0.0075**	0.0034	237	0.0121*	0.0071	0.0071
+1 to +3	Mean	5922	0.0096	0.0055	0.0137***	2541	0.0065	0.0137***	0.0065	238	0.0202**	0.0122	0.0122
	Median	5922	0.0031	0.0020	0.0056***	2541	0.0037	0.0056***	0.0037	238	0.0077*	0.0064	0.0064

We concentrate on the discussion of the industry-adjusted results because the results account for cross-sectional industry differences and are thus more likely to be an accurate representation of performance changes around director appointments. The performance changes in Tobin's Q presented in the above table show that performance changes are generally positive around director appointments. In particular, we find that the changes in Tobin's Q associated with the appointment of an award-winning CEO outside director are substantially more positive than those observed for outside directors or CEO outside directors. This observation supports our argument that the appointment of an award-winning CEO outside directors is particularly valuable from a firm's perspective.

Moreover, in accordance with our main results the analysis reveals positive performance changes around the appointment of award-winning CEO outside directors. In contrast, the appointment of outside directors or CEO outside directors results in no significant unadjusted or industry-adjusted performance changes. In particular, we find significant performance changes in 4 out of 6 time windows. Namely, the $(-1,+2)$, $(-1,+3)$, $(0,+3)$ and the $(+1,+3)$ event window. We find no positive performance change in the event window prior to the appointment $(-3,-1)$. This finding further supports our hypothesis because it shows that the positive performance cannot be attributed to the period prior to the appointment.

Looking at changes in operating performance (ROA) around director appointments is also in accordance with the results reported in the main analysis. While we find small performance effects for the unadjusted post-appointment period for CEO and award-winning CEO outside directors, this effect disappears when we account for cross-section correlation. Performance changes are uniformly positive but insignificant. Overall, the results lend strong support to our hypothesis that award-winning CEO outside directors can help firms realize their growth potential.

Firm performance around director appointments: Difference-in-difference approach

In this subsection, we take a different approach to better capture differences in performance changes between different types of director appointments. We evaluate performance changes using a difference-in-difference approach (Fahlenbrach et al., 2010). This approach allows us to design a formal test to compare changes in performance around director appointments. In order to uncover the biggest possible contrast, we compare average performance measures for the appointments of outside director and award-winning CEO outside directors.

Tobin's Q around director appointments - differences-in-differences

The table below reports long-term performance changes around director appointments using the difference-in-difference methodology. Firm performance is measured using Tobin's Q. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. Directors are classified as outside directors and award-winning CEO outside directors. Performance prior to the appointment is calculated as the average over event years -2 and -3. Performance after the appointment is calculated as the average over event years +1 through +3. A two-sample *t*-test is used to determine whether the mean for outside directors and award-winning CEO outside directors are significantly different. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Type of appointment		Difference (3)
	Outside Director (1)	Award-winning CEO Director (2)	
Panel A: Tobin's Q			
Before	1.956	2.399	0.443 ***
After	1.791	2.053	0.262 ***
Difference			-0.181
	Type of appointment		Difference (3)
	Outside Director (1)	Award-winning CEO Director (2)	
Panel B: Industry-adjusted Tobin's Q			
Before	0.352	0.643	0.291***
After	0.245	0.376	0.131*
Difference			-0.160

Operating performance around director appointments - differences-in-differences

The table below reports long-term performance changes around director appointments using the difference-in-difference methodology. Firm performance is measured using ROA. *ROA* is defined as operating income before depreciation and taxes. Directors are classified as outside directors and award-winning CEO outside directors. Performance prior to the appointment is calculated as the average over event years -2 and -3. Performance after the appointment is calculated as the average over event years +1 through +3. A two-sample *t*-test is used to determine whether the mean for outside directors and award-winning CEO outside directors are significantly different. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Type of appointment		Difference (3)
	Outside Director (1)	Award-winning CEO Director (2)	
Panel A: ROA			
Before	0.157	0.174	0.017**
After	0.147	0.159	0.012*
Difference			-0.005
	Type of appointment		Difference (3)
	Outside Director (1)	Award-winning CEO Director (2)	
Panel B: Industry-adjusted ROA			
Before	0.143	0.158	0.014**
After	0.138	0.149	0.010**
Difference			-0.004

Our analysis reveals significant differences in the unadjusted and industry-adjusted Tobin's Q before the appointment of an award-winning CEO outside director. The findings are consistent with the notion that award-winning CEOs join the boards of firms that have higher Tobin's Q to being with. The differences between outside director appointments and the appointments of award-winning CEO outside directors is large and economically meaning but seems to diminish over time. The differences in post-appointment industry-adjusted Tobin's Q are much smaller and also less significant.

A similar picture emerges for changes in operating performance around director appointments. CEO award winners tend to sit on the board of firms that have performed well before the appointment and continue to perform better after the appointment, but less so.

However, most importantly there is no indication that there are significant differences between the pre- and post-appointment performance between the two different groups of directors.

Additional results entrenchment index and individual governance provisions

Award-winning CEO outside directors and individual provisions

The table below reports logistic regression results where the dependent variables are the six individual governance provisions of the entrenchment index (Bebchuk et al., 2009). The six individual governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. *AwCEO outside director* is an indicator variable equal to one if a firm has at least one outside director who is the CEO of another firm and has won a CEO award. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – *statistics* given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Staggered board (1)	Limits to amend by-laws (2)		Limits to amend charter (3)		Super- majority (4)	Golden parachutes (5)	Poison pill (6)
AwCEO outside directors (Dummy)	-0.301** (-2.21)	-0.388** (-2.04)	0.779 (1.60)	-0.321* (-1.66)	-0.105 (-0.83)	-0.221* (-1.72)		
LN(Board size)	0.443*** (2.73)	0.433** (2.13)	-0.447 (-0.91)	0.487*** (2.25)	0.458*** (2.90)	0.190 (1.23)		
Fraction outside directors	0.378* (1.68)	-0.187 (-0.67)	1.576** (2.15)	-0.109 (-0.36)	0.908*** (4.15)	1.142*** (5.34)		
R&D Expense	0.562 (0.48)	-1.533 (-0.96)	5.994 (1.36)	1.140 (0.67)	-0.741 (-0.66)	2.753** (2.52)		
Capital expenditures	0.0430 (0.07)	-0.206 (-0.26)	-5.117** (-2.40)	-0.449 (-0.55)	-1.485** (-2.41)	0.254 (0.44)		
Capital intensity	-0.182 (-1.63)	-0.0493 (-0.36)	0.900*** (2.76)	0.219 (1.43)	-0.3775*** (-3.38)	0.159 (1.55)		
Leverage	0.672*** (4.10)	0.715*** (3.27)	0.0680 (0.12)	0.0564 (0.25)	-0.241 (-1.50)	0.236 (1.50)		
LN(Sales)	0.0360 (0.52)	-0.0104 (-0.12)	0.898*** (3.93)	0.177* (1.91)	0.220*** (3.24)	0.212*** (3.27)		
Risk	-0.614*** (-3.61)	-0.693*** (-3.20)	-1.489*** (-2.72)	-0.768*** (-3.28)	-0.449*** (-2.98)	-0.238 (-1.46)		
ROA(t)	-0.427 (-1.16)	-0.843* (-1.76)	-0.579 (-0.44)	-0.149 (-0.30)	-0.998*** (-2.79)	-0.715** (-2.07)		
ROA _{t-1}	-0.410 (-1.11)	-0.0400 (-0.09)	-0.596 (-0.45)	-0.254 (-0.53)	0.169 (0.48)	-0.963*** (-2.79)		
ROA _{t-2}	0.608** (2.02)	-0.110 (-0.29)	-2.979*** (-2.65)	0.192 (0.47)	-0.307 (-1.05)	-0.597** (-2.09)		
Segments	0.0488** (2.39)	0.0505* (1.94)	0.0936 (1.48)	0.0410 (1.44)	-0.00580 (-0.30)	0.0396** (2.07)		
CEO ownership	0.735 (0.71)	4.400*** (3.42)	7.855** (1.97)	-2.331* (-1.75)	8.606*** (8.14)	3.806*** (3.95)		
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes		
Year FE	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	15912	12633	3022	11532	16423	16559		

Award-winning CEO outside directors and individual provisions

The table below reports logistic regression results where the dependent variables are the six individual governance provisions of the entrenchment index (Bechtuk et al., 2009). The six individual governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. *AwCEO outside director* is the fraction of outside directors who are CEOs of other firms and have won a CEO award to total board size. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – *statistics* given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Staggered board (1)	Limits to amend by-laws (2)	Limits to amend charter (3)	Super- majority (4)	Golden parachutes (5)	Poison pill (6)
AwCEO outside directors (Fraction)	-2.852** (-2.40)	-3.780** (-2.02)	7.746* (1.65)	-2.999 (-1.64)	-1.082 (-1.00)	-1.635 (-1.43)
LN(Board size)	0.436*** (2.69)	0.425** (2.09)	-0.419 (-0.85)	0.481** (2.23)	0.454*** (2.88)	0.183 (1.19)
Fraction outside directors	0.378* (1.69)	-0.187 (-0.67)	1.593** (2.18)	-0.108 (-0.36)	0.909*** (4.15)	1.140*** (5.33)
R&D expense	0.529 (0.45)	-1.543 (-0.97)	6.077 (1.38)	1.134 (0.67)	-0.751 (-0.67)	2.731** (2.50)
Capital expenditures	0.0469 (0.07)	-0.202 (-0.26)	-5.120** (-2.40)	-0.443 (-0.54)	-1.481** (-2.40)	0.256 (0.44)
Capital intensity	-0.181 (-1.63)	-0.0492 (-0.36)	0.899*** (2.76)	0.219 (1.44)	-0.374*** (-3.38)	0.159 (1.54)
Leverage	0.671*** (4.09)	0.714*** (3.26)	0.0802 (0.14)	0.0575 (0.26)	-0.242 (-1.50)	0.237 (1.50)
LN(Sales)	0.0367 (0.53)	-0.0101 (-0.12)	0.897*** (3.92)	0.177* (1.92)	0.221*** (3.25)	0.211*** (3.26)
Risk	-0.615*** (-3.62)	-0.693*** (-3.20)	-1.495*** (-2.73)	-0.769*** (-3.28)	-0.450*** (-2.72)	-0.238 (-1.46)
ROA(t)	-0.421 (-1.14)	-0.847* (-1.77)	-0.550 (-0.42)	-0.151 (-0.30)	-0.996*** (-2.79)	-0.711** (-2.06)
ROA _{t-1}	-0.411 (-1.11)	-0.0398 (-0.09)	-0.605 (-0.45)	-0.254 (-0.53)	0.168 (0.47)	-0.963*** (-2.79)
ROA _{t-2}	0.605** (2.01)	-0.113 (-0.29)	-2.976*** (-2.65)	0.189 (0.46)	-0.308 (-1.05)	-0.598** (-2.09)
Segments	0.0487** (2.39)	0.0505* (1.95)	0.0917 (1.45)	0.0412 (1.45)	-0.00586 (-0.30)	0.0398** (2.08)
CEO Ownership	0.729 (0.70)	4.394*** (3.41)	7.903** (1.99)	-2.334* (-1.75)	8.605*** (8.14)	3.796*** (3.94)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	15912	12633	3022	11532	16423	16559

Additional results: Award-winning CEO outside directors and the entrenchment index

The table below reports regression results where the dependent variable is the entrenchment index (Bebchuk et al., 2009). The index comprises six individual governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Entrenchment Index		
	(1)	(2)	(3)
AwCEO outside directors (Number)	-0.0987* (-1.84)	-0.100* (-1.88)	-0.102* (-1.89)
LN(Board size)	0.249*** (2.86)	0.248*** (2.86)	0.251*** (2.87)
Fraction outside directors	0.372*** (3.11)	0.370*** (3.10)	0.373*** (3.12)
R&D expense	0.467 (0.83)	0.384 (0.68)	0.341 (0.61)
Capital expenditures	-0.509* (-1.75)	-0.481* (-1.65)	-0.563* (-1.93)
Capital Intensity	-0.0395 (-0.68)	-0.0470 (-0.80)	-0.0366 (-0.63)
Leverage	0.150 (1.59)	0.149 (1.57)	0.166* (1.77)
LN(Sales)	0.0619 (1.38)	0.0630 (1.41)	0.0652 (1.46)
Risk	-0.349*** (-3.68)	-0.381*** (-3.98)	-0.362*** (-3.80)
Tobin's Q	-0.0752*** (-4.61)		
LN(Tobin's Q)		-0.200*** (-4.38)	
Industry-adjusted Tobin's Q			-0.0647*** (-3.99)
Segments	0.0208* (1.75)	0.0206* (1.74)	0.0211* (1.78)
CEO ownership	2.640*** (3.45)	2.653*** (3.48)	2.638*** (3.43)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	20014	20014	20014
<i>R</i> ²	0.026	0.026	0.026

Additional results: Award-winning CEO outside directors and the entrenchment index

The table below reports regression results where the dependent variable is the entrenchment index (Bebchuk et al., 2009). The index comprises six individual governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Entrenchment Index		
	(1)	(2)	(3)
AwCEO outside directors (Number)	-0.112** (-2.03)	-0.115** (-2.10)	-0.111** (-2.02)
Blockholder	-0.0372 (-1.52)		
LN(Firm age)		0.147 (1.26)	
Fraction female directors			0.0204 (0.10)
Fraction international directors			-0.0748** (-2.22)
LN(Board size)	0.242*** (2.76)	0.226** (2.57)	0.268*** (2.98)
Fraction outside directors	0.387*** (3.24)	0.375*** (3.15)	0.384*** (3.20)
R&D expense	0.356 (0.64)	0.351 (0.63)	0.338 (0.61)
Capital expenditures	-0.308 (-1.02)	-0.271 (-0.90)	-0.296 (-0.98)
Capital intensity	-0.0302 (-0.52)	-0.0262 (-0.45)	-0.0284 (-0.49)
Leverage	0.172* (1.81)	0.167* (1.76)	0.167* (1.76)
LN(Sales)	0.110** (2.40)	0.101** (2.16)	0.111** (2.41)
Risk	-0.382*** (-3.99)	-0.367*** (-3.80)	-0.378*** (-3.92)
ROA(t)	-0.475*** (-2.61)	-0.447** (-2.45)	-0.471*** (-2.60)
ROA(t-1)	-0.263* (-1.79)	-0.252* (-1.71)	-0.257* (-1.75)
ROA(t-2)	-0.0839 (-0.63)	-0.0596 (-0.44)	-0.0837 (-0.63)
Segments	0.0219* (1.84)	0.0218* (1.82)	0.0217* (1.82)
CEO ownership	2.632*** (3.43)	2.572*** (3.36)	2.625*** (3.43)
Observations	19941	19941	19941
<i>R</i> ²	0.026	0.026	0.026

Alternative dependent variable: Sales/Assets

Alternative dependent variables and firm performance

The table below reports regression results of our baseline regression using the natural logarithm of Tobin's Q and the natural logarithm of an industry-adjusted Tobin's Q in Panel A and the Market-to-book ratio and return on sales (ROS) as an alternative measure of valuation and operational efficiency in Panel B. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. *Industry-adjusted Tobin's Q* is calculated as a firm's Tobin's Q minus the median industry Tobin's Q. Industry is defined using the 48 industry classifications of Fama and French. *Market-to-book* is market capitalization over book equity and *ROS* is operating income before depreciation over lagged sales. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Sales/Assets (1)
AwCEO outside directors (Number)	-0.0167 (-1.23)
LN(Board size)	-0.0722*** (-3.12)
Fraction outside directors	0.00426 (0.13)
R&D expense	1.117*** (6.51)
Capital expenditures	0.0720 (0.81)
Capital intensity	-0.267*** (-15.33)
Leverage	-0.152*** (-4.70)
LN(Sales)	0.0754*** (5.56)
Risk	0.107*** (4.52)
ROA(t)	0.526*** (8.84)
ROA _{t-1}	-0.0459 (-1.26)
ROA _{t-2}	-0.0872*** (-2.66)
Segments	-0.00471* (-1.80)
CEO ownership	0.113 (0.62)
Firm FE	Yes
Year FE	Yes
Observations	23128
R ²	0.167

Missing R&D values

Baseline regression: Missing R&D values

The table below reports regression results of our baseline regression using Tobin's Q as the dependent variable. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. We have dropped observations with missing R&D expenditures from the sample. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Tobin's Q (1)
AwCEO outside directors (Number)	0.138*** (3.03)
LN(Board size)	-0.068 (-1.23)
Fraction outside directors	0.033 (0.47)
R&D expense	4.489*** (6.68)
Capital expenditures	0.319 (1.23)
Capital intensity	-0.192*** (-5.68)
Leverage	-0.497*** (-7.35)
LN(Sales)	-0.397*** (-12.71)
Risk	0.327*** (5.71)
ROA(t)	4.414*** (24.48)
ROA _{t-1}	0.450*** (3.95)
ROA _{t-2}	0.520*** (4.91)
Segments	-0.018*** (-2.70)
CEO Ownership	-0.587 (-1.26)
Constant	3.806*** (16.63)
Firm FE	Yes
Year FE	Yes
Observations	22315
R ²	0.3452

Additional robustness tests

In this section we provide additional robustness tests. We present results controlling for outliers and the exclusion of specific industries. To further evaluate whether our results are driven by observations in the tail of the distributions we compare our results for the non-winsorized case, a 2.5% winsorization and a 5% winsorization. We then exclude observations that fall into the top 1% of within-firm standard deviation among the performance measures and our measure of award-winning CEO

outside directors. In a second step, we examine whether our results are robust to the exclusion of certain industries. First, we exclude financial (6000-6999) and utility (4900-4999) firms and second we exclude technology (7370) firms from the sample.

Robustness to outliers

Robustness: Outliers

The table below reports results for our baseline regression controlling for the effect of outliers in our data. The dependent variables are Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. Panel A presents results based on a non-winsorized sample, Panel B results for a sample winsorized at the top and bottom 2.5%, Panel C presents results for a sample winsorized at top and bottom 5%. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A	No winsorization	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.1600*** (2.58)	-0.0022 (-0.52)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23128	23239
R^2	0.190	0.207
Panel B	Winsorization: 2.5%	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.1250*** (3.14)	-0.0022 (-0.61)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23128	23239
R^2	0.345	0.294
Panel C	Winsorization: 5%	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.0997*** (2.97)	-0.0021 (-0.60)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23128	23239
R^2	0.342	0.292

Robustness: Outliers

The table below reports results for our baseline regression controlling for the effect of outliers in our data. The dependent variables are Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. Panel A for a sample where observations in the top 1% of within-firm standard deviation in the performances measures are dropped and Panel B for a sample where observations in the top 1% of within-firm standard deviation in the award-winning CEO outside director variable are dropped. *t* – *statistics* given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Standard deviation performance measures greater than 1%	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.1340*** (3.04)	-0.0023 (-0.60)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23128	23238
R^2	0.339	0.281
Panel B		
	Standard deviation award-winning CEO outside director greater than 1%	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.1340*** (3.04)	-0.0023 (-0.60)
Control Variables as in Table 3.4	Yes	No
Control Variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	23128	23239
R^2	0.339	0.281

Robustness to exclusion of certain industries

Robustness: Exclusion of certain industries

The table below reports results for our baseline regression excluding financial (6000-6999) and utility (4900-4999) firms in Panel A and excluding technology firms (7370) in Panel B. The dependent variables are Tobin's Q and ROA. *Tobin's Q* is the ratio of total assets plus the market value of equity minus the book value of equity minus deferred taxes to total assets and *ROA* is defined as operating income before depreciation and taxes. *AwCEO outside director* is the number of outside directors who are CEOs of other firms and have won a CEO award. All variables are winsorized at 1st and 99th percentile values and expressed in 2005 dollars. Intercept is included in all regressions but not reported. *t* – statistics given in parentheses are based on standard errors corrected for heteroskedasticity and firm-level clustering. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A	Excluding financial (6000-6999) and utility (4900-4999) firms	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.1440*** (2.98)	-0.0019 (-0.45)
Control variables as in Table 3.4	Yes	No
Control variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	18396	18496
R^2	0.351	0.308
Panel B	Excluding IT (7370) firms	
	Tobin's Q	ROA
	(1)	(2)
AwCEO outside directors (Number)	0.1260*** (2.83)	-0.0021 (-0.54)
Control variables as in Table 3.4	Yes	No
Control variables as in Table 3.5	No	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	22747	22857
R^2	0.336	0.283

Appendix C

Variable Definition

The governance data are from *RiskMetrics*, accounting data are from *Compustat*, stock return data are from *CRSP* and M&A data from SDC. The data is for the period from 1996-2013.

Variable	Definition	Data source
<i>Acquirer characteristics</i>		
Award-winning outside directors	Number of outside directors who have won a CEO Award.	RiskMetrics/CEO Awards
Board size	Total number of directors on the board.	RiskMetrics
Fraction outside directors	Fraction of outside directors on the board.	RiskMetrics
Assets	Total assets.	Compustat
ROA	Operating income before depreciation over total assets.	Compustat
Debt-to-assets	Short-term and long-term debt over total assets.	Compustat
Cash-to-assets	Cash over total assets.	Compustat
<i>Deal characteristics</i>		
Total number of M&A's	Total number of completed M&A's by bidder in throughout the sample period.	SDC
Cumulative number of M&A's	Cumulative number of completed M&A's by the bidder throughout the sample period.	SDC
Negotiation time	The gap between the announcement of the deal completion and the first public announcement of takeover negotiations.	SDC
Diversifying	Indicator variable: One if acquirer and target are not from the same industry, zero otherwise. Industries are defined using the Fama-French 48 industry classification.	SDC
Tender offer	Indicator variable: One for a tender offer, zero otherwise.	SDC
Hostile	Indicator variable: One if the bid was hostile, zero otherwise.	SDC
Cash deal	Indicator variable: One if deal was fully financed with cash, zero otherwise.	SDC
All Cash or Mixed	Indicator variable: One if deal is fully or partially financed with cash.	SDC
Dollar deal value	Total dollar value of the deal.	SDC
Relative deal value	Deal value divided by acquirer's market value of equity.	SDC/CRSP

Additional Results

Equally-weighted long-term calendar-time portfolio results

Long-term M&A performance: Fama-French 3-Factor Regression

This table reports results from Fama-French (FF) three factor regressions to detect abnormal returns. RMRF is the difference between monthly stock return portfolio and 91-day T-bill rate. SMB is the difference between the returns of small size firm portfolios and large size firm portfolios. HML is the difference between the returns of value firm portfolios and growth firm portfolios. We use equal-weight monthly portfolio returns and estimate an ordinary least square (OLS) model for the 36 months following the acquisition. The “Alpha” value reported in the regression model indicates the monthly average abnormal return of the sample. Panel A present results for all cases (N=3,157). Panels B and C present results for “non-overlapping” (N=1,744) and “overlapping” (N=1,413) cases. If a firm makes an acquisition within three years of a previous acquisition, the cases are considered “overlapping”. *t* – statistics given in parentheses and ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels.

	Factors				Model Characteristics	
	Alpha	RMRF	SMB	HML	Adj. R^2	F-stat
<i>Panel A: All cases</i>						
All bids (N=3157)	0.0010 (0.74)	1.1164*** (31.09)	0.4082*** (4.24)	0.4354*** (7.07)	0.8772	570.33***
Award-winning outside directors (N=236)	0.0003 (0.15)	1.1179*** (25.58)	0.1395* (1.94)	0.3174*** (4.24)	0.7924	299.95***
No award-winning outside directors (N=2921)	0.0010 (0.75)	1.1163*** (30.27)	0.4268*** (4.30)	0.4456*** (7.13)	0.8755	561.04***
<i>Panel B: Non-overlapping cases</i>						
All bids (N=1744)	0.0011 (0.83)	1.1351*** (32.20)	0.4251*** (4.42)	0.4275*** (7.17)	0.8844	610.46***
Award-winning outside directors (N=144)	-0.0005 (-0.25)	1.1324*** (23.98)	0.1864*** (2.85)	0.3065*** (4.19)	0.7974	309.23***
No award-winning outside directors (N=1600)	0.0012 (0.88)	1.1341*** (30.97)	0.4451*** (4.45)	0.4404*** (7.20)	0.8813	592.48***
<i>Panel C: Overlapping cases</i>						
All bids (N=1413)	-0.0010 (-0.61)	1.0640*** (24.61)	0.3871*** (3.55)	0.4047*** (4.62)	0.8014	333.30***
Award-winning outside directors (N=92)	0.0018 (0.65)	1.1377*** (19.14)	0.1212* (1.49)	0.3155 (3.80)	0.6365	132.89***
No award-winning outside directors (N=1,321)	0.0002 (0.10)	1.1360*** (34.13)	0.3581*** (7.95)	0.4606*** (9.98)	0.8581	474.74***

Appendix D

CEO Awards: Overview

CEO Awards

This table provides an overview on the sources of CEO awards. The table reports a description, an estimate of the circulation and the period of circulation.

Issue	Description	Circulation	Period
<i>Business Week</i>	Best Manager	970,000	1992-2009
<i>Financial World</i>	CEO of the Year (Gold)	430,000	1975-1997
<i>Financial World</i>	CEO of the Year (Silver)	430,000	1975-1997
<i>Forbes</i>	Best Performing CEO	910,000	2001-2012
<i>Chief Executive</i>	CEO of the Year	42,000	1986-2013
<i>Morningstar.com</i>	CEO of the Year	Website	1999-2013
<i>Electronic Business Magazine</i>	CEO of the Year	65,000	1997-2006
<i>Industry Week</i>	CEO of the Year	250,000	1993-2006
<i>Harvard Business Review</i>	50 Best-Performing CEOs	250,000	2010
<i>Harvard Business Review</i>	100 Best-Performing CEOs	250,000	2013

Award Description

Business Week: The editorial staff awards two types of annual awards. Best Manager and Best Entrepreneur. Only Best Manager awards are included in the sample. Included are awards from 1992-2009. The total number of Best Manager awards during the sample period is 304. Awards for 2006 and 2007 are missing.

Financial World: For more than 20 years the editorial staff choose the “CEO of the Year” and published it until 1997. The CEO of the Year were classified into “Gold”, “Silver” and “Bronze”. There was one “Gold” winner and about 10 “Silver” winners per year until 1994, one award per industry per year in 1995 and 1996, and 5 winners in 1997. In total there are 199 awards throughout 1975-1997.

Forbes: *Forbes* has published a list of “Best Performing CEOs”, selected by the editorial board, since 2001. There were 5 winners in 2001, and roughly 10 winners since 2002. In total there are 112 awards between 2001-2012.

Chief Executive: Since 1986, the editorial staff of *Chief Executive* has published the “CEO of the Year”. There has been one winner each year and 27 winners in total.

Morningstar.com: The editorial staff of *Morningstar.com* began publishing a “CEO of the Year” in 1999. There were 2 winners 1999, 2001 and 2004 and 1 winner for all other years. The website awarded 18 awards during the period of 1999-2013.

Electronic Business Magazine: The editorial staff has named a “CEO of the Year” each year from 1997-2006.

Industry Week: 2001 is missing. 18 awards total. 1993-2006. Since 1996 on award each year.

Harvard Business Review: *Harvard Business Review* published a list of the “50 Best-Performing CEOs” in 2010 and a list of “The Top 100 Best-Performing CEOs in the World” in 2013. From the 2014 list we exclude CEOs who had assumed their role before 1995 or after April 30, 2012.

Appendix E

RiskMetrics

RiskMetrics: Firm identifier

Our governance data are drawn from *RiskMetrics*. In 2007, *RiskMetrics* changed the methodology used to collect data. As a result, the data on directors are provided in two datasets: 1) Directors Legacy from 1996-2006 and 2) Directors from 2007-2013. As outlined in great detail in Coles et al. (2014), there is no unique firm or director identifier across the entire sample period 1996-2013. For example, from 1996-2006 the CUSIP provided is the 6-digit CUSIP and after 2007 the CUSIP provided is the 9-digit CUSIP. The 6-digit CUSIP in the Directors Legacy dataset is the header CUSIP, which means that whenever the database was updated the CUSIP was updated and applied to the entire history of the firm. Since the dataset was discontinued in 2006, the 6-digit CUSIP was the CUSIP for the firm as of 2006 or the last year the firm was included in the database. The 8-digit CUSIP, on the other hand, refers to the actual CUSIP for the firm for a given year. We use the CUSIP, the TICKER and NAME associated with each firm for a given year to uniquely identify firms. We follow the procedure outlined in Coles et al. (2014) to obtain unique GVKEY-YEAR combinations to merge the RiskMetrics dataset with Compustat, PERMNO to merge with CRSP, NCSUIP to merge with Thomson Reuters 13F database.

We start with all observations in the RiskMetrics database. There are 166,375 director-year observations in the Director Legacy dataset and 96,679 director-year

observations in the Directors dataset. Director-year observations are then aggregated to firm-year observations. We are able to find a unique PERMNO for 2956 firms. Overall, the sample from the RiskMetrics contains 26,609 firm-year observations (downloaded as of July 2015) for the period 1996-2013. Of those 16,364 correspond to the pre-2007 and 10,246 correspond to post-2007 sample.

RiskMetrics: Director identifier

There is no unique director identifier across the two RiskMetrics datasets. Two director IDs are maintained: 1) LEGACY`DIRECTOR`ID and 2) DIRECTOR`DETAIL`ID. The DIRECTOR`DETAIL`ID is supplied by WRDS and populated from 2004 onward. All directors who started in 2004 and directors who started prior to 2004 and still serve on a board as of 2004 have a valid DIRECTOR`DETAIL`ID. However, directors who quit before 2004 do not have a valid DIRECTOR`DETAIL`ID. Thus, prior to 2004, some directors have no DIRECTOR`DETAIL`ID.

Pre-2004, the unique identifier is LEGACY`DIRECTOR`ID. This variable is populated for directors who were on the database prior to 2004. Directors who joined on or after 2004 will not have a LEGACY`DIRECTOR`ID. For directors who joined firms listed in the database in or after 2004, only DIRECTOR`DETAIL`ID is available. For those directors who are not listed on the database before 2004, only LEGACY`DIRECTOR`ID is available.

Coles et al. (2014) provide detailed examples of the problems associated with the inconsistent use of director identifiers and the resulting implications for sample and variable construction. Following Coles et al. (2014), we use both IDs to identify all directors in the RiskMetrics database.

DIRECTOR`DETAIL`ID

Coles et al. (2014) further outline issues around specific DIRECTOR`DETAIL`IDs. The DIRECTOR`DETAIL`ID of 35025 belonging to H. Paulett Eberhart, for example, has been wrongly assigned in certain ways. We follow the authors directions

and correct known mistakes associated with DIRECTOR`DETAIL`ID. In particular, Coles et al. (2014) have identified problems associated with director JOHN M KEANE (DIRECTOR`DETAIL`ID 35937), MARY L GOOD (inconsistent naming and DIRECTOR`DETAIL`IDs). We correct inconsistencies where possible and drop all remaining inconsistent observations from the sample.

MEETINGDATE

Another issue that emerges when working with the RiskMetrics database is the identification of the correct time period. The dataset provides two time variables: MEETINGDATE (date of the annual meeting) and YEAR (year of the MEETINGDATE). However, as outlined by Coles et al. (2014), the YEAR variable does not always match the year in MEETINGDATE. We adjust the YEAR (or MEETINGDATE) variable where necessary.

References

- Adams, R. B. and D. Ferreira (2007). A theory of friendly boards. *The Journal of Finance* 62(1), 217–250.
- Adams, R. B. and D. Ferreira (2008). Do directors perform for pay? *Journal of Accounting and Economics* 46(1), 154–171.
- Adams, R. B. and D. Ferreira (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics* 94(2), 291–309.
- Adams, R. B., B. E. Hermalin, and M. S. Weisbach (2010). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of Economic Literature* 48(1), 58–107.
- Agrawal, A., J. F. Jaffe, and G. N. Mandelker (1992). The post-merger performance of acquiring firms: A re-examination of an anomaly. *The Journal of Finance* 47(4), 1605–1621.
- Ahern, K. R. (2010). Q-theory and acquisition returns. *Working Paper, SSRN*.
- Alexandridis, G., K. P. Fuller, L. Terhaar, and N. G. Travlos (2013). Deal size, acquisition premia and shareholder gains. *Journal of Corporate Finance* 20, 1–13.
- Ammann, M., P. Horsch, and D. Oesch (2016). Competing with superstars. *Management Science* 62(10), 2842–2858.
- Andrade, G., M. Mitchell, and E. Stafford (2001). New evidence and perspectives on mergers. *The Journal of Economic Perspectives* 15(2), 103–120.
- Askildsen, J. E., B. H. Baltagi, and T. H. Holmås (2003). Wage policy in the health care sector: a panel data analysis of nurses’ labour supply. *Health Economics* 12(9), 705–719.

- Atanasov, V., V. Ivanov, and K. Litvak (2012). Does reputation limit opportunistic behavior in the vc industry? evidence from litigation against vcs. *The Journal of Finance* 67(6), 2215–2246.
- Baltagi, B. (2008). *Econometric analysis of panel data*. John Wiley & Sons.
- Battalio, R., A. Ellul, and R. Jennings (2007). Reputation effects in trading on the new york stock exchange. *The Journal of Finance* 62(3), 1243–1271.
- Bebchuk, L., A. Cohen, and A. Ferrell (2009). What matters in corporate governance? *Review of Financial Studies* 22(2), 783–827.
- Berger, P. G. and E. Ofek (1995). Diversification’s effect on firm value. *Journal of Financial Economics* 37(1), 39–65.
- Berle, A. and G. Means (1932). *The modern corporate and private property*. MacMillan, New York, NY.
- Bertrand, M., A. Schoar, et al. (2003). Managing with style: The effect of managers on firm policies. *The Quarterly Journal of Economics* 118(4), 1169–1208.
- Bhagat, S. and B. Bolton (2008). Corporate governance and firm performance. *Journal of Corporate Finance* 14(3), 257–273.
- Boehmer, E., J. Masumeci, and A. B. Poulsen (1991). Event-study methodology under conditions of event-induced variance. *Journal of Financial Economics* 30(2), 253–272.
- Boone, A. L., L. C. Field, J. M. Karpoff, and C. G. Raheja (2007). The determinants of corporate board size and composition: An empirical analysis. *Journal of Financial Economics* 85(1), 66–101.
- Booth, J. R. and D. N. Deli (1996). Factors affecting the number of outside directorships held by CEOs. *Journal of Financial Economics* 40(1), 81–104.
- Brochet, F. and S. Srinivasan (2014). Accountability of independent directors: Evidence from firms subject to securities litigation. *Journal of Financial Economics* 111(2), 430–449.

- Brown, L. D. and M. L. Caylor (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy* 25(4), 409–434.
- Brown, S. J. and J. B. Warner (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics* 14(1), 3–31.
- Cai, Y. and M. Sevilir (2012). Board connections and M&A transactions. *Journal of Financial Economics* 103(2), 327–349.
- Cameron, A. C. and D. L. Miller (2015). A practitioner’s guide to cluster-robust inference. *Journal of Human Resources* 50(2), 317–372.
- Campbell, J. Y., A. W.-C. Lo, and A. C. MacKinlay (1997). *The econometrics of financial markets*. Princeton University Press.
- Carhart, M. M. (1997). On persistence in mutual fund performance. *The Journal of Finance* 52(1), 57–82.
- Carter, D. A., B. J. Simkins, and W. G. Simpson (2003). Corporate governance, board diversity, and firm value. *Financial Review* 38(1), 33–53.
- Chang, S. (1998). Takeovers of privately held targets, methods of payment, and bidder returns. *The Journal of Finance* 53(2), 773–784.
- Chevalier, J. and G. Ellison (1999). Are some mutual fund managers better than others? Cross-sectional patterns in behavior and performance. *The Journal of Finance* 54(3), 875–899.
- Coles, J., N. Daniel, and L. Naveen (2015). Board Groupthink. *Working Paper, University of Utah*.
- Coles, J. L., N. D. Daniel, and L. Naveen (2008). Boards: Does one size fit all? *Journal of Financial Economics* 87(2), 329–356.
- Coles, J. L., N. D. Daniel, and L. Naveen (2014). Co-opted boards. *Review of Financial Studies* 27(6), 1751–1796.
- Cools, K., J. Gell, J. Kengelbach, and A. Roos (2007). The brave new world of M&A: How to create value from mergers and acquisitions. *Boston Consulting Group July 25*.

- Core, J. E., R. W. Holthausen, and D. F. Larcker (1999). Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics* 51(3), 371–406.
- Cornelli, F., Z. Kominek, and A. Ljungqvist (2013). Monitoring managers: Does it matter? *The Journal of Finance* 68(2), 431–481.
- Cremers, K. and V. B. Nair (2005). Governance mechanisms and equity prices. *The Journal of Finance* 60(6), 2859–2894.
- Davidson, W. N., B. Xie, and W. Xu (2004). Market reaction to voluntary announcements of audit committee appointments: The effect of financial expertise. *Journal of Accounting and Public Policy* 23(4), 279–293.
- Dehejia, R. H. and S. Wahba (2002). Propensity score-matching methods for non-experimental causal studies. *Review of Economics and Statistics* 84(1), 151–161.
- Demb, A. and F. Neubauer (1992). *The Corporate Board*. New York, Oxford: Oxford University Press.
- Demiroglu, C. and C. M. James (2010). The role of private equity group reputation in lbo financing. *Journal of Financial Economics* 96(2), 306–330.
- Demsetz, H. and K. Lehn (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy* 93(6), 1155–1177.
- Diamond, D. W. (1989). Reputation acquisition in debt markets. *Journal of Political Economy*, 828–862.
- Dimov, D., D. A. Shepherd, and K. M. Sutcliffe (2007). Requisite expertise, firm reputation, and status in venture capital investment allocation decisions. *Journal of Business Venturing* 22(4), 481–502.
- Dittmann, I., E. Maug, and C. Schneider (2010). Bankers on the boards of German firms: What they do, what they are worth, and why they are (still) there. *Review of Finance* 14(1), 35–71.
- Dodd, P. and J. B. Warner (1983). On corporate governance: A study of proxy contests. *Journal of Financial Economics* 11(1), 401–438.

- Dominguez-Martinez, S., O. H. Swank, and B. Visser (2008). In defense of boards. *Journal of Economics & Management Strategy* 17(3), 667–682.
- Dutta, S. and V. Jog (2009). The long-term performance of acquiring firms: A re-examination of an anomaly. *Journal of Banking & Finance* 33(8), 1400–1412.
- Eisenberg, T., S. Sundgren, and M. T. Wells (1998). Larger board size and decreasing firm value in small firms. *Journal of Financial Economics* 48(1), 35–54.
- Ertimur, Y., F. Ferri, and D. A. Maber (2012). Reputation penalties for poor monitoring of executive pay: Evidence from option backdating. *Journal of Financial Economics* 104(1), 118–144.
- Faccio, M., M.-T. Marchica, and R. Mura (2016). CEO gender, corporate risk-taking, and the efficiency of capital allocation. *Journal of Corporate Finance*.
- Faccio, M. and R. W. Masulis (2005). The choice of payment method in European mergers and acquisitions. *The Journal of Finance* 60(3), 1345–1388.
- Fahlenbrach, R., A. Low, and R. M. Stulz (2010). Why do firms appoint CEOs as outside directors? *Journal of Financial Economics* 97(1), 12–32.
- Falato, A., D. Li, and T. Milbourn (2015). Which skills matter in the market for CEOs? Evidence from pay for CEO credentials. *Management Science* 61(12), 2845–2869.
- Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, 288–307.
- Fama, E. F. (1998). Market efficiency, long-term returns, and behavioral finance. *Journal of Financial Economics* 49(3), 283–306.
- Fama, E. F. and K. R. French (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics* 33(1), 3–56.
- Fama, E. F. and K. R. French (1997). Industry costs of equity. *Journal of Financial Economics* 43(2), 153–193.
- Fama, E. F. and K. R. French (2015). A five-factor asset pricing model. *Journal of Financial Economics* 116(1), 1 – 22.

- Fama, E. F. and M. C. Jensen (1983). Separation of ownership and control. *Journal of Law and Economics* 26(2), 301–25.
- Fang, L. and A. Yasuda (2009). The effectiveness of reputation as a disciplinary mechanism in sell-side research. *Review of Financial Studies* 22(9), 3735–3777.
- Fang, L. H. (2005). Investment bank reputation and the price and quality of underwriting services. *The Journal of Finance* 60(6), 2729–2761.
- Ferris, S. P., M. Jagannathan, and A. C. Pritchard (2003). Too busy to mind the business? Monitoring by directors with multiple board appointments. *The Journal of Finance*, 1087–1111.
- Fich, E. M. (2005). Are some outside directors better than others? Evidence from director appointments by Fortune 1000 firms. *The Journal of Business* 78(5), 1943–1972.
- Fich, E. M. and A. Shivdasani (2006). Are busy boards effective monitors? *The Journal of Finance* 61(2), 689–724.
- Fich, E. M. and A. Shivdasani (2007). Financial fraud, director reputation, and shareholder wealth. *Journal of Financial Economics* 86(2), 306–336.
- Field, L., M. Lowry, and A. Mkrtchyan (2013). Are busy boards detrimental? *Journal of Financial Economics* 109(1), 63–82.
- Fogel, K., L. Ma, and R. Morck (2014). Powerful independent directors. *Working Paper, NBER*.
- Fos, V. and M. Tsoutsoura (2014). Shareholder democracy in play: Career consequences of proxy contests. *Journal of Financial Economics* 114(2), 316–340.
- Francis, B., I. Hasan, and Q. Wu (2015). Professors in the boardroom and their impact on corporate governance and firm performance. *Financial Management* 44(3), 547–581.
- Fuller, K., J. Netter, and M. Stegemoller (2002). What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions. *The Journal of Finance* 57(4), 1763–1793.

- George, G., L. Dahlander, S. D. Graffin, and S. Sim (2016). Reputation and status: Expanding the role of social evaluations in management research. *Academy of Management Journal* 59(1), 1–13.
- Gilson, S. C. (1990). Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default. *Journal of Financial Economics* 27(2), 355–387.
- Gomes, A. (2000). Going public without governance: managerial reputation effects. *The Journal of Finance* 55(2), 615–646.
- Gompers, P. A., J. L. Ishii, and A. Metrick (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, 107–155.
- Gorodnichenko, Y. and M. Weber (2016). Are sticky prices costly? evidence from the stock market. *The American Economic Review* 106(1), 165–199.
- Grinstein, Y. and P. Hribar (2004). CEO compensation and incentives: Evidence from M&A bonuses. *Journal of Financial Economics* 73(1), 119–143.
- Güner, A. B., U. Malmendier, and G. Tate (2008). Financial expertise of directors. *Journal of Financial Economics* 88(2), 323–354.
- Harford, J. and K. Li (2007). Decoupling CEO wealth and firm performance: The case of acquiring CEOs. *The Journal of Finance* 62(2), 917–949.
- Harford, J. and R. J. Schonlau (2013). Does the director labor market offer ex post settling-up for CEOs? The case of acquisitions. *Journal of Financial Economics* 110(1), 18–36.
- Hayward, M. L. (2002). When do firms learn from their acquisition experience? Evidence from 1990 to 1995. *Strategic Management Journal* 23(1), 21–39.
- Hayward, M. L. and D. C. Hambrick (1997). Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 103–127.
- Henry, D. and F. F. Jespersen (2002). Mergers: Why most big deals don’t pay off. *Business Week* 14(10), 2002.

- Hermalin, B. E. and M. S. Weisbach (1998). Endogenously chosen boards of directors and their monitoring of the CEO. *American Economic Review*, 96–118.
- Hermalin, B. E., M. S. Weisbach, et al. (2003). Boards of directors as an endogenously determined institution: a survey of the economic literature. *Economic Policy Review* (Apr), 7–26.
- Holmström, B. (1982). Managerial incentive problems: A dynamic perspective. In *Essays in economics and management in honour of Lars Wahlbeck*, pp. 209–30. Helsinki, Finland: Swedish School of Economics.
- Huang, Q., F. Jiang, E. Lie, and K. Yang (2014). The role of investment banker directors in M&A. *Journal of Financial Economics* 112(2), 269–286.
- Ishii, J. and Y. Xuan (2014). Acquirer-target social ties and merger outcomes. *Journal of Financial Economics* 112(3), 344–363.
- Jackson, A. R. (2005). Trade generation, reputation, and sell-side analysts. *The Journal of Finance* 60(2), 673–717.
- Jensen, M. and A. Roy (2008). Staging exchange partner choices: When do status and reputation matter? *Academy of Management Journal* 51(3), 495–516.
- Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *American Economic Review* 76(2).
- Jensen, M. C. and W. H. Meckling (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3(4), 305–360.
- Jiang, W., H. Wan, and S. Zhao (2015). Reputation concerns of independent directors: Evidence from individual director voting. *Review of Financial Studies* 29, 655–696.
- Kang, S., E. H. Kim, and Y. Lu (2016). Independent directors’ work experience. *Working Paper, SSRN*.
- Kaplan, S. N. and D. Reishus (1990). Outside directorships and corporate performance. *Journal of Financial Economics* 27(2), 389–410.

- Karsten, C., U. Malmendier, and Z. Sautner (2015). M&A negotiations and lawyer expertise. *Working Paper, University of Amsterdam*.
- Kim, D. and L. T. Starks (2016). Gender diversity on corporate boards: Do women contribute unique skills? *The American Economic Review* 106(5), 267–271.
- Kothari, S. and J. B. Warner (2008). Econometrics of event studies. In *Handbook of Empirical Corporate Finance*, Volume 2. Elsevier.
- Krishnan, C., V. I. Ivanov, R. W. Masulis, and A. K. Singh (2011). Venture capital reputation, post-ipo performance, and corporate governance. *Journal of Financial and Quantitative Analysis* 46(05), 1295–1333.
- Lamont, O. A. and C. Polk (2002). Does diversification destroy value? Evidence from the industry shocks. *Journal of Financial Economics* 63(1), 51–77.
- Lang, L. H. and R. M. Stulz (1994). Tobin’s q, corporate diversification, and firm performance. *Journal of Political Economy*, 1248–1280.
- Lange, D., P. M. Lee, and Y. Dai (2011). Organizational reputation: A review. *Journal of Management* 37(1), 153–184.
- Lee, P. M. and E. H. James (2007). She’-e-os: gender effects and investor reactions to the announcements of top executive appointments. *Strategic Management Journal* 28(3), 227–241.
- Lewellen, K. (2006). Risk, reputation, and ipo price support. *The Journal of Finance* 61(2), 613–653.
- Lin, S., P. F. Pope, and S. Young (2003). Stock market reaction to the appointment of outside directors. *Journal of Business Finance & Accounting* 30(3-4), 351–382.
- Linck, J. S., J. M. Netter, and T. Yang (2008). The determinants of board structure. *Journal of Financial Economics* 87(2), 308–328.
- Livingston, M. and R. E. Miller (2000). Investment bank reputation and the underwriting of nonconvertible debt. *Financial Management*, 21–34.
- Mace, M. (1986). *Directors: Myth and Reality*. Harvard Business School Press, Boston, MA.

- Malatesta, P. H. (1983). The wealth effect of merger activity and the objective functions of merging firms. *Journal of Financial Economics* 11(1), 155–181.
- Malmendier, U. and G. Tate (2008). Who makes acquisitions? CEO overconfidence and the market’s reaction. *Journal of Financial Economics* 89(1), 20–43.
- Malmendier, U. and G. Tate (2009). Superstar CEOs. *The Quarterly Journal of Economics* 124(4), 1593–1638.
- Martynova, M. and L. Renneboog (2011). Evidence on the international evolution and convergence of corporate governance regulations. *Journal of Corporate Finance* 17(5), 1531–1557.
- Masulis, R. W. and S. Mobbs (2011). Are all inside directors the same? Evidence from the external directorship market. *The Journal of Finance* 66(3), 823–872.
- Masulis, R. W. and S. Mobbs (2014). Independent director incentives: Where do talented directors spend their limited time and energy? *Journal of Financial Economics* 111(2), 406–429.
- Masulis, R. W., C. Wang, and F. Xie (2007). Corporate governance and acquirer returns. *The Journal of Finance* 62(4), 1851–1889.
- Masulis, R. W., C. Wang, and F. Xie (2012). Globalizing the boardroom - the effects of foreign directors on corporate governance and firm performance. *Journal of Accounting and Economics* 53(3), 527–554.
- Masulis, W. and S. Mobbs (2016). Supply and demand for independent director services: Major board decisions and corporate outcomes. *Working Paper, SSRN*.
- Mathis, J., J. McAndrews, and J.-C. Rochet (2009). Rating the raters: are reputation concerns powerful enough to discipline rating agencies? *Journal of monetary Economics* 56(5), 657–674.
- McCahery, J. A., Z. Sautner, and L. T. Starks (2016). Behind the scenes: The corporate governance preferences of institutional investors. *The Journal of Finance* 71(6), 2905–2932.

- McConnell, J. J. and H. Servaes (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics* 27(2), 595–612.
- Mitchell, M. L. and E. Stafford (2000). Managerial decisions and long-term stock price performance. *The Journal of Business* 73(3), 287–329.
- Moeller, S. B., F. P. Schlingemann, and R. M. Stulz (2003). Do shareholders of acquiring firms gain from acquisitions? *Working Paper, NBER*.
- Moeller, S. B., F. P. Schlingemann, and R. M. Stulz (2004). Firm size and the gains from acquisitions. *Journal of Financial Economics* 73(2), 201–228.
- Moeller, S. B., F. P. Schlingemann, and R. M. Stulz (2005). Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave. *The Journal of Finance* 60(2), 757–782.
- Morck, R., A. Shleifer, and R. W. Vishny (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics* 20, 293–315.
- Morck, R., A. Shleifer, and R. W. Vishny (1990). Do managerial objectives drive bad acquisitions? *The Journal of Finance* 45(1), 31–48.
- Nanda, V. and Y. Yun (1997). Reputation and financial intermediation: An empirical investigation of the impact of ipo mispricing on underwriter market value. *Journal of Financial Intermediation* 6(1), 39–63.
- Naveen, L., N. D. Daniel, and J. J. McConnell (2013). The advisory role of foreign directors in US firms. *Working Paper, SSRN*.
- Nelson, P. (1974). Advertising as information. *Journal of Political Economy* 82(4), 729–754.
- Novy-Marx, R. (2013). The other side of value: The gross profitability premium. *Journal of Financial Economics* 108(1), 1–28.
- Renneboog, L. and Y. Zhao (2014). Director networks and takeovers. *Journal of Corporate Finance* 28, 218–234.

- Rhee, M. and P. R. Haunschild (2006). The liability of good reputation: A study of product recalls in the us automobile industry. *Organization Science* 17(1), 101–117.
- Rogerson, W. P. (1983). Reputation and product quality. *The Bell Journal of Economics*, 508–516.
- Roll, R. (1986). The hubris hypothesis of corporate takeovers. *Journal of Business*, 197–216.
- Rosenbaum, P. R. and D. B. Rubin (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika* 70(1), 41–55.
- Ross, D. G. (2010). The “dominant bank effect:” how high lender reputation affects the information content and terms of bank loans. *Review of Financial Studies* 23(7), 2730–2756.
- Schmidt, B. (2015). Costs and benefits of friendly boards during mergers and acquisitions. *Journal of Financial Economics* 117(2), 424–447.
- Schwartz-Ziv, M. and M. S. Weisbach (2013). What do boards really do? Evidence from minutes of board meetings. *Journal of Financial Economics* 108(2), 349–366.
- Servaes, H. (1996). The value of diversification during the conglomerate merger wave. *The Journal of Finance* 51(4), 1201–1225.
- Shapiro, C. (1983). Premiums for high quality products as returns to reputations. *The Quarterly Journal of Economics* 98(4), 659–679.
- Shapiro, C. and J. E. Stiglitz (1984). Equilibrium unemployment as a worker discipline device. *The American Economic Review* 74(3), 433–444.
- Shemesh, J. (2014). CEO social status and risk-taking. *Working Paper, Melbourne University*.
- Shivdasani, A. and D. Yermack (1999). CEO involvement in the selection of new board members: An empirical analysis. *The Journal of Finance* 54(5), 1829–1853.

- Shrivastava, P. (1986). Postmerger integration. *Journal of Business Strategy* 7(1), 65–76.
- Sila, V., A. Gonzalez, and J. Hagendorff (2017). Independent director reputation incentives and stock price informativeness. *Working Paper, Cardiff University*.
- Sorenson, O. (2014). Status and reputation: Synonyms or separate concepts? *Strategic Organization* 12(1), 62–69.
- Stiglitz, J. E. and A. Weiss (1983). Incentive effects of terminations: Applications to the credit and labor markets. *The American Economic Review* 73(5), 912–927.
- Tobin, J. (1958). Estimation of relationships for limited dependent variables. *Econometrica: Journal of the Econometric Society*, 24–36.
- Travlos, N. G. (1987). Corporate takeover bids, methods of payment, and bidding firms’ stock returns. *The Journal of Finance* 42(4), 943–963.
- Wang, C. and F. Xie (2009). Corporate governance transfer and synergistic gains from mergers and acquisitions. *Review of Financial Studies* 22(2), 829–858.
- Wu, Q. (2011). Information conduit or agency cost: top managerial and director interlock between target and acquirer. *Arizona State University, Working Paper*.
- Xuan, Y. (2009). Empire-building or bridge-building? Evidence from new CEOs’ internal capital allocation decisions. *Review of Financial Studies* 22(12), 4919–4948.
- Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics* 40(2), 185–211.
- Yermack, D. (2004). Remuneration, retention, and reputation incentives for outside directors. *The Journal of Finance* 59(5), 2281–2308.